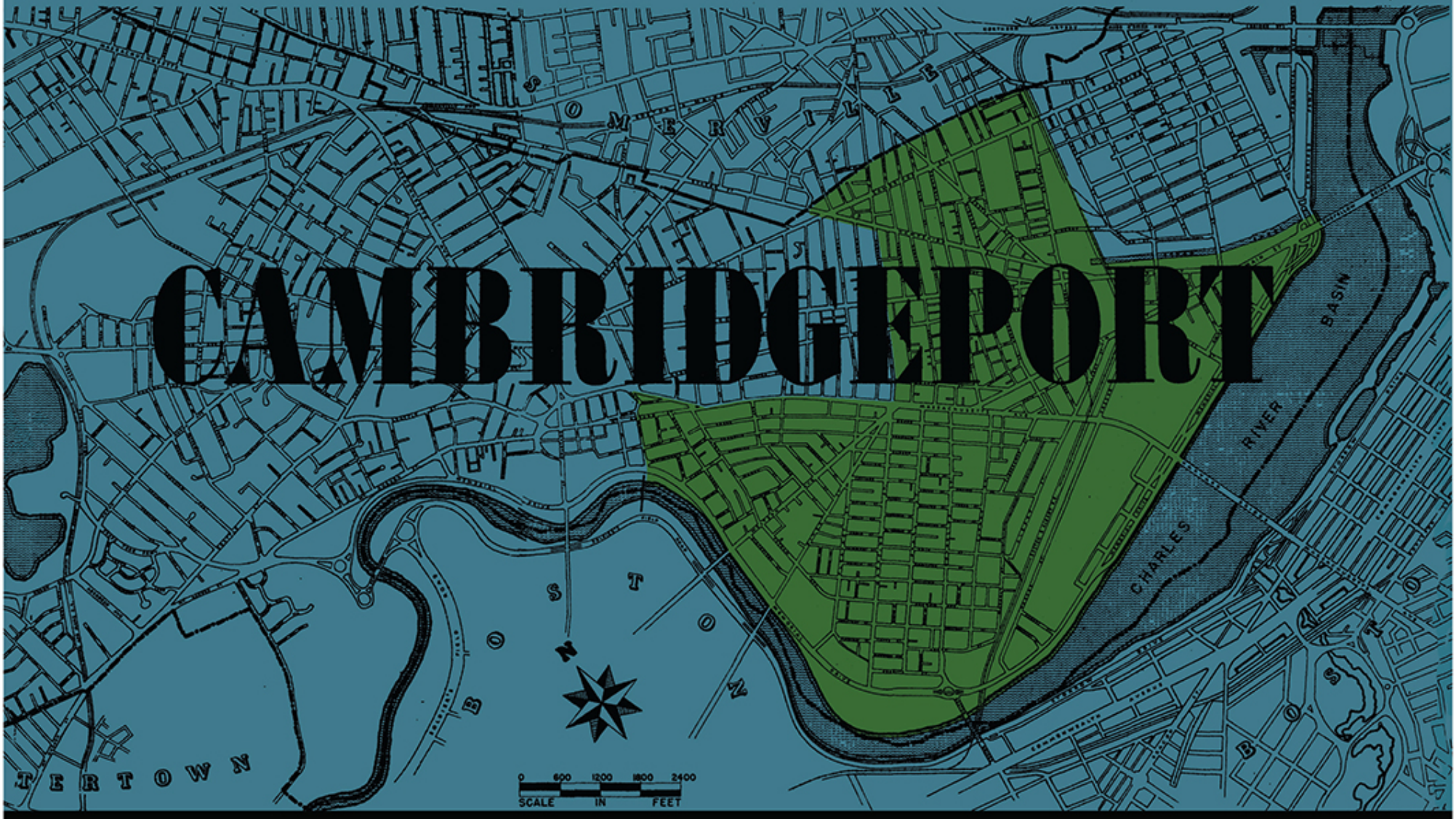
SURVEY OF ARCHITECTURAL HISTORY IN CAMBRIDGE



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SURVEY OF ARCHITECTURAL HISTORY IN CAMBRIDGE

REPORT THREE: CAMBRIDGEPORT

Cambridge Historical Commission

Distributed by The M.I.T. Press
Cambridge, Massachusetts 1971

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1. AERIAL PHOTO OF CAMBRIDGEPORT, 1966

FOREWORD

Concerns for environment have become increasingly manifest since the Survey of Architectural History in Cambridge was undertaken in 1964. The Survey responds to one of those concerns. It aims to help those who live and work and visit here to relate better to our man-made environment. It aims to help those who change this environment to do so in ways that respect and make best use of what is most worth preserving from our past, so that the new will be compatible with the old, the whole will be more vital and dynamic, and life in Cambridge will be more comprehensible, challenging, and rewarding.

Manifestations of this growing environmental concern include the National Historic Preservation Act of 1966 and its Office of Archeology and Historic Preservation; the National Register of Historic Places set up thereunder and first published in 1970 (including five Cambridge places: Massachusetts Hall, Christ Church, the Longfellow House, Elmwood, and the Asa Gray House); the 1966 acts and subsequent regulations under which the programs of the Department of Transportation and the Department of Housing and Urban Development are made increasingly sensitive to preservation needs; the historic preservation provisions of the Environmental Quality Act of 1969; the burgeoning membership and service activities of the National Trust for Historic Preservation; and the increasing responsibilities placed on the Massachusetts Historical Commission (established in 1963) for state and regional survey work, for review of local historic district study committee reports, urban renewal plans, and highway plans, and for the state preservation plan which received initial Federal approval in January 1971 as a prerequisite to matching funds for preservation projects under OAHP programs.

The Survey, authorized by the 1963 ordinance that established the Cambridge Historical Commission and the Cambridge Common, Longfellow, Fayerweather-Lee, and Lowell Historic Districts, has been supported by city appropriations of approximately $30,000 per year. *Report One: East Cambridge,* including summaries of the city's topographical, economic, and architectural development, was published in the summer of 1965, and *Report Two: Mid Cambridge* was published in the fall of 1967. The latter covers the area north of Massachusetts Avenue from Prospect Street to Porter Square, with the exception of the main Harvard precincts. This *Report Three: Cambridgeport* covers the rest of the city east of DeWolfe Street and Mid Cambridge. The area covered is larger and has more buildings and a wider variety of architectural types than the two prior survey areas combined. More than a century and a half of development of the city's principal commercial and industrial areas and their supporting residential districts is covered, and more than a half century of development at Massachusetts Institute of Technology. *Report Four: Old Cambridge* is planned for 1972 publication, field work and writing now being substantially done, except for Harvard's buildings. Field work is planned for the areas west and north of Aberdeen and Huron Avenues and Upland Road in the fall of 1971 for a fifth and final report, which may include or be followed by an overall review with recommendations.

In 1969, Survey work had progressed sufficiently to permit preparation and publication of the *Guide to Cambridge Architecture: Ten Walking Tours* (M.I.T. Press) to meet popular demand, reflecting the general environmental concern.

Staff

This report is the work of many hands over a six-year period.

Dr. Bainbridge Bunting, S.B. University of Illinois 1937, Ph.D. Harvard 1952, Professor of Art and Architectural History at the University of New Mexico, a recent director of the Society of Architectural Historians, author of *Houses of Boston's Back Bay* (Harvard University Press), and principal author of *Report One: East Cambridge* and *Report Four: Old Cambridge,* did most of the residential inventory and wrote Part Four and most of Part Two of this report in the summers of 1965 and 1966. As Survey Director, he has exercised advisory supervision throughout.

Robert Bell Rettig, A.B. Harvard 1961, A.M. Harvard 1963, Assistant Professor of Architecture at the University of Texas in 1965-1966, and now a Director of the Society of Architectural Historians, was co-author of *Report One: East Cambridge,* editor of *Report Two: Mid Cambridge,* author of the *Guide to Cambridge Architecture,* and has been full-time Associate Survey Director since 1966. He has had primary responsibility for the writing and editing of this report since then and has also rendered many other services to the Commission and to various city agencies through his accumulated knowledge and experience.

Robert H. Nylander, B.A. University of Virginia 1964, author of parts of *Report One: East Cambridge* and principal researcher for *Report Two: Mid Cambridge* and *Report Four: Old Cambridge,* did much of the research for this report, part of the residential inventory, and some of the writing of Part One.

Colin Diver, B.A. Amherst 1965, J.D. Harvard 1968, did research and writing of most of Part One in the summers of 1965 and 1966.

Alice A. Lyndon (Mrs. Donlyn Lyndon), B.A. Indiana University 1957, M.A. University of California at Berkeley 1963, did part-time research and writing for the M.I.T. section and research on churches in 1967-1969.

Susan Maycock Vogel (Mrs. Robert C. Vogel), B.A. Wellesley 1965, A.M. Boston University 1971, full time with the Survey in 1968 and 1969, wrote most of the churches section then and has since helped with drafting, editing, and layout work on a part-time basis.

Eleanor Pearson, A.B. Radcliffe 1964, served the Commission full time in 1965-1968 and did research and preliminary editorial work for this report.

Amy E. Cohn, A.B. University of Michigan 1968, A.M. Boston University 1970, now Secretary of the Commission, has been working with community groups on rehabilitation and preservation projects in the Cambridgeport area and has been making more available the research reflected in this report, on which she has helped in various ways.

Others involved in the Cambridgeport study include Isabella Athey (Mrs. I.W. Athey), who has done all of the Commission's newspaper research since 1967 and has given valuable editorial assistance for this report; Michel Choban, who did research for the Survey in 1965 and wrote a portion of Part One of this report; William Simmers, who prepared most of the maps for the report; Richard Cheek, Edward Jacoby, Bonnie Orr Miskolczy, John Terry, and Stephen Trowbridge, who were responsible for photography; and Maureen Clarke Petkus (Mrs. John A. Petkus, Jr.), who handled secretarial work.

Cooperation and assistance have been received from many sources, in particular the City's Planning and Development, Building, Assessing, and Engineering Departments and the Cambridge Public Library.

A Cambridgeport Advisory Committee, all residing or working in the survey area, reviewed the work in detail in 1970. This committee consisted of Robert G. Neiley, Chairman; Mrs. Laura Brown, Francis X. Hayes, Frederick J. Reardon, O. Robert Simha, and Mrs. Eva Stankunas.

Particularly valuable comments were also received from Professor John Coolidge of the Architectural Historical Survey Advisory Committee, which has assisted throughout the Survey.

Survey Uses

The purposes of architectural historical surveys, stated in the Providence College Hill Demonstration Study of 1958 and repeated in our prior report forewords, include inducing private preservation; attracting visitors; helping guide urban renewal and rehabilitation determinations, institutional expansion, and public works projects; aiding historic district boundary determinations and development of the City's master plan; and arousing general community interest.

As our Survey has progressed, we have come more and more to see these purposes being served, and to realize the needs and advantages of gathering basic data on most buildings in every neighborhood. Even apart from the published reports, the building-by-building files and documentation have been proving their value in more ways than originally anticipated. Already in the case of five old houses threatened with demolition, preliminary documentation and evaluation by the Survey and support from the Commission have enabled the owners to move and restore the buildings so that they can serve new uses well and can continue to enrich our environment for many years to come. The five houses are, first, the long neglected mid-18th-century Watson House, removed from Russell Street in North Cambridge to make room for the Cambridge Nursing Home and restored at 30 Elmwood Avenue by the Cambridge Heritage Trust, which was organized for the purpose with the City as its beneficiary; second, the Episcopal Theological School's 1852 monitor-roof wide-pilastered house at 170 Brattle Street, which formerly stood on Mason Street at Phillips Place, where the School's new library now stands; third and fourth, Harvard's Read House (ca. 1772) and Nichols House (1827, with distinctive bow-fronted bays), which were moved up Farwell Place to make room for the School of Education Library; and fifth, Harvard's 1838 Regency Greek Revival Sparks House, moved from Quincy Street to 21 Kirkland Street to make room for the Graduate School of Design's Gund Hall.

Another example of successful private preservation encouraged by the Survey and the Commission is the storefront at 1304 Massachusetts Avenue, opposite Widener Library. The Survey had identified this rare example of the curvilinear Art Nouveau style, had determined its date (1907) and its architect (Coolidge and Carlson), and had included it on a 1967 list of Cambridge areas and buildings most worthy of preservation. Long hidden behind an awning and the clutter of a newsstand, this unique storefront was threatened with destruction in the spring of 1970, when a new tenant was preparing to replace it with a conventional new storefront. After the Survey documentation and evaluation had been brought to the attention of the tenant, the owner, and Harvard (owner of a purchase option), the owner and tenant restored the front to its original appearance, and the owner and Harvard by exchange of letters gave assurance of saving it in case of future building alterations, by gift to the Boston Museum of Fine Arts if another suitable location on a Cambridge street cannot be found.

The Survey's data gathering and evaluation can be of even more significance in helping guide private and public urban renewal, rehabilitation, and advance planning. Only with building-by-building review can neighborhood analyses such as Part Four of this report become possible. We hope that the published reports will help each neighborhood to recognize and maintain features of value that might otherwise be overlooked. Day-to-day repair and refurbishing decisions can make a big difference to neighborhood appearance, and significant distinctive features can often be preserved at less or little more expense than unsympathetic replacements.

Work for this report has enabled the Survey staff to be of help to rehabilitation efforts in the Wellington-Harrington Urban Renewal Area and the Model Cities neighborhood. It has pointed up the architectural, historical, and neighborhood significance of the Margaret Fuller House (Fig. 64) and the Cambridge Neighborhood House (Fig. 68) and has enabled these two buildings to be listed by the Massachusetts Historical Commission in the Massachusetts Preservation Plan Appendix of places expected to be recommended for inclusion in the National Register. Forms for such inclusion have been submitted to the State Commission. Such inclusion is required to obtain Federal matching funds for needed restoration of both houses.

Uses of the Survey work for planning can be quite varied. In 1967, the Survey furnished to the Eastern Massachusetts Regional Planning Project and the Massachusetts Historical Commission an evaluation of 102 Cambridge areas and buildings most worthy of preservation. These agencies are also being furnished with copies of the Survey reports as published, for assistance in transportation and other public works planning.

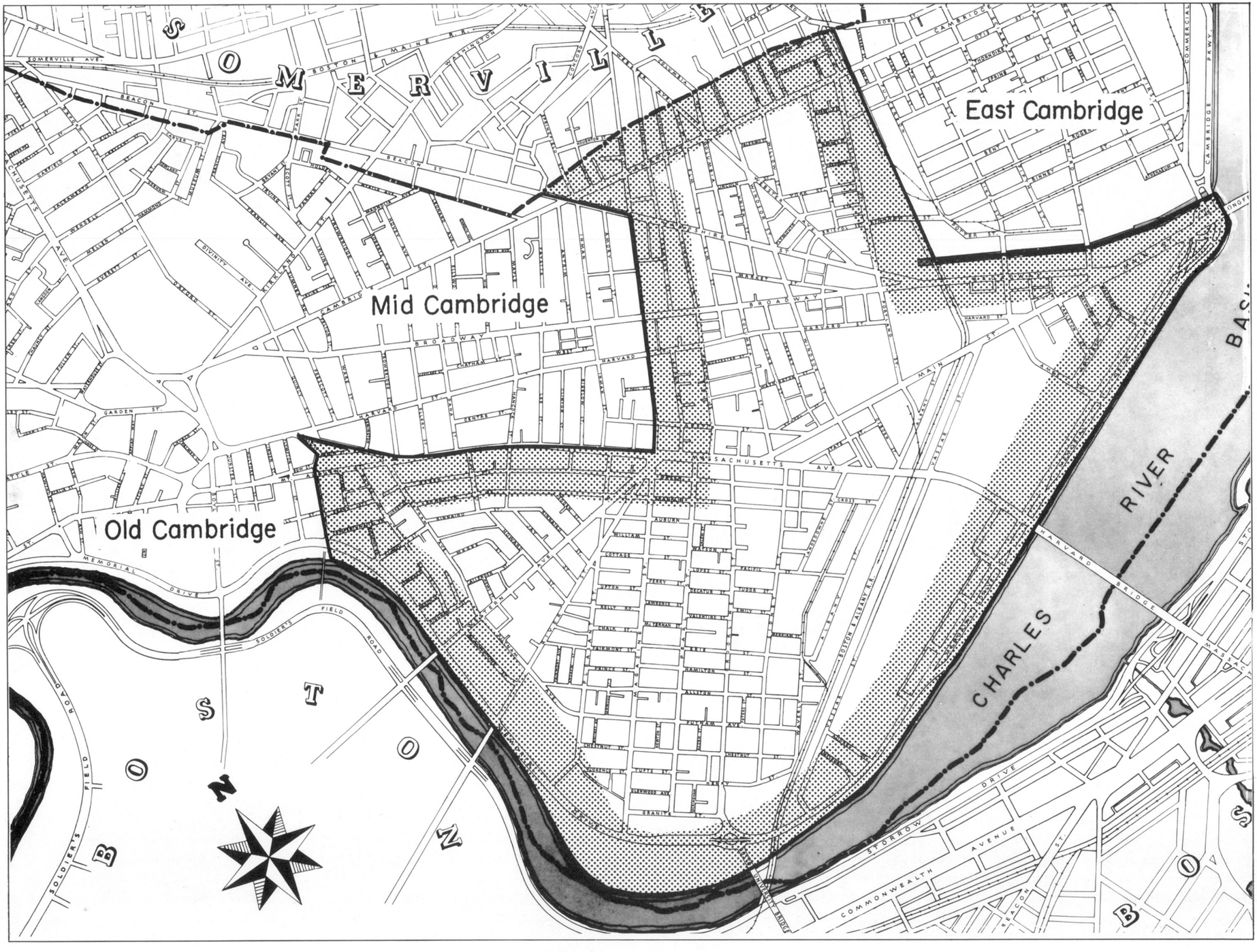
A special report of Survey data and evaluations for the Harvard Square district was furnished to the Cambridge Advisory Committee on Harvard Square in 1967, and most of the planning proposals for the Square that have been published since have reflected recognition of the importance of the landmarks there stressed.

The sharing of adjoining offices by the Survey staff and the Planning and Development Department has facilitated close working relationships that are mutually helpful. For instance, the Planning Department's recent *Elementary School Building Study: Choices for the '70's* makes good use of data and newspaper reports about Cambridge schools gathered by the Survey staff in its study of school buildings.

We hope that as appreciation of the environment grows, the Survey and its reports will help assure that our buildings and neighborhoods most worthy of preservation will be increasingly recognized and respected and not damaged or destroyed without careful weighing of alternatives.

Albert B. Wolfe, Chairman
Cambridge Historical Commission
February 26, 1971

2. AERIAL PHOTO OF CAMBRIDGEPORT, 1966


SOMERVILLE
East Cambridge
Mid Cambridge
Old Cambridge
CHARLES RIVER
BOSTON
BEACON ST.
BROADWAY
MASSACHUSETTS AVE.
MEMORIAL DRIVE
SOLDIERS FIELD ROAD
STORROW DRIVE
COMMONWEALTH AVENUE
HARVARD BRIDGE

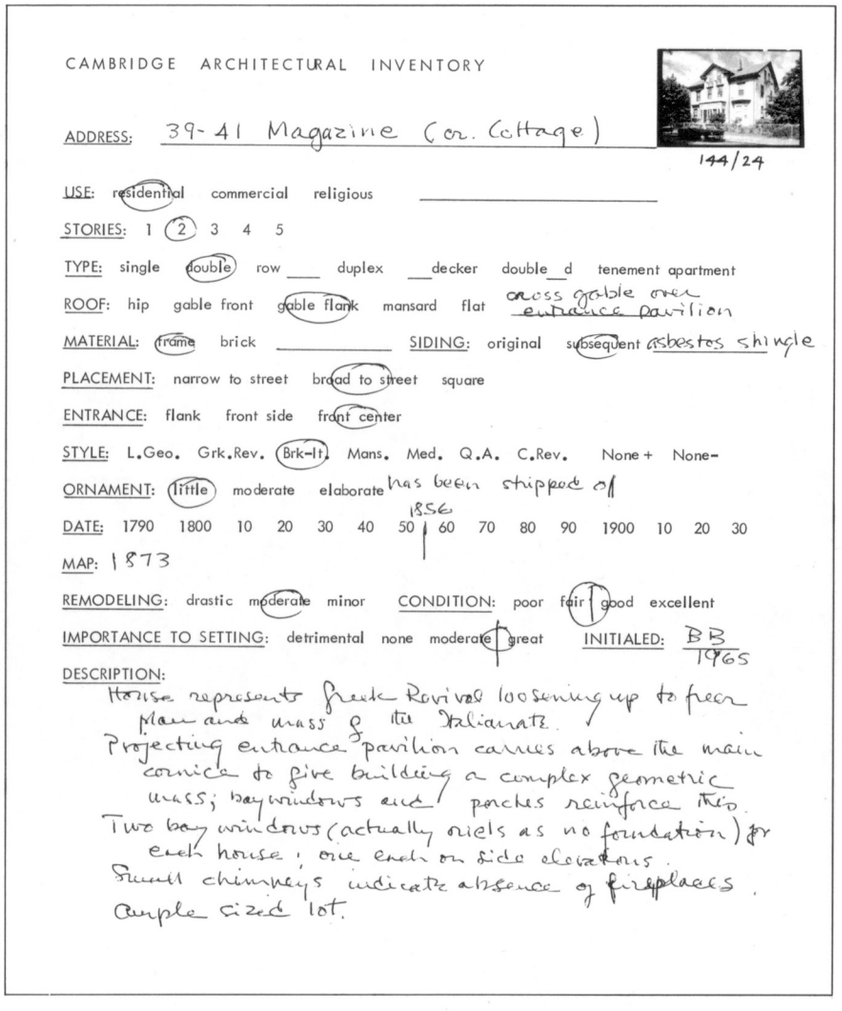
INTRODUCTION

The subject of this report is the architectural history of Cambridgeport, a sprawling residential and industrial district bounded on the south and west by the Charles River and merging on the north and east with adjoining sections of Cambridge and Somerville. Figs. 1 and 2, aerial photographs taken in 1966, show the extent of the district and something of the variety of its architecture.

The name Cambridgeport comes from an early 19th-century attempt to establish a deep-water port in the vicinity of modern Kendall Square. The port development failed, but the name Cambridgeport remained in use. In the mid-19th century, the name was used for the entire second ward of the city, from Portland Street and the Broad Canal on the east to Dana Street and the river on the west. Although the name is now generally applied just to the residential neighborhood south of Central Square, this report and the survey on which it is based treat Cambridgeport in the 19th-century sense, with minor adjustments in the old second-ward lines to conform to present conditions.

Fig. 3 shows the boundaries of the Cambridgeport survey area and its relationship to East Cambridge, Mid Cambridge, and Old Cambridge. The river provides a natural boundary on the south and west, and the Somerville line delimits the north. The line between Cambridgeport and East Cambridge follows the Boston and Albany railroad tracks and the Broad Canal, although most of the latter has been filled since the survey began. The line separating Cambridgeport from Mid Cambridge and Old Cambridge follows Hampshire and Prospect Streets, Massachusetts Avenue, and DeWolfe Street. Since boundaries such as these are inevitably somewhat arbitrary, certain buildings outside the strict limits of the survey area are included in this report when they belong logically with Cambridgeport buildings under discussion. Examples include East Cambridge industrial buildings at the Cambridgeport end of First and Sixth Streets and Mid Cambridge civic and commercial buildings near Central Square.

Despite the fact that Cambridgeport is considerably larger than East Cambridge or Mid Cambridge and has many more buildings, the same kind of thorough inventory was undertaken as in the previous survey areas. A separate inventory sheet was filled out for every structure, regardless of age, size, or condition. The standard Cambridge inventory sheet was used for residential buildings; a typical example is shown in Fig. 4. (Compare *East Cambridge,* p. 46, and *Mid Cambridge,* p. 9.) Although a photograph of every building was not part of the original program, subsequent efforts have produced a nearly complete photographic record of the survey area, a resource that will become increasingly valuable as buildings are demolished or changed. The standard inventory sheet proved only partially effective for non-residential building types, in which Cambridgeport abounds. Therefore, in the course of the survey, new forms were developed for churches, schools, industrial buildings, and M.I.T. buildings. A typical industrial inventory sheet is shown in Fig. 5.


CAMBRIDGE ARCHITECTURAL INVENTORY

144/24

ADDRESS: 39-41 Magazine (Cor. Cottage)

USE: residential commercial religious

STORIES: 1 (2) 3 4 5

TYPE: single (double) row ___ duplex ___decker double_d tenement apartment

ROOF: hip gable front (gable flank) mansard flat cross gable over entrance pavilion

MATERIAL: (frame) brick _____ SIDING: original (subsequent) asbestos shingle

PLACEMENT: narrow to street (broad to street) square

ENTRANCE: flank front side (front center)

STYLE: L.Geo. Grk.Rev. (Brk-It.) Mans. Med. Q.A. C.Rev. None+ None-

ORNAMENT: (little) moderate elaborate has been stripped off

DATE: 1790 1800 10 20 30 40 50 1856 60 70 80 90 1900 10 20 30

MAP: 1873

REMODELING: drastic (moderate) minor CONDITION: poor fair (good) excellent

IMPORTANCE TO SETTING: detrimental none (moderate) great INITIALED: BB 1965

DESCRIPTION:

House represents Greek Revival loosening up to free plan and mass & its Italianate. Projecting entrance pavilion carries above the main cornice to give building a complex geometric mass; bay windows and porches reinforce this. Two bay windows (actually oriels as no foundation) for each house; one each on side elevations. Small chimneys indicate absence of fireplaces. Ample sized lot.

4. SAMPLE RESIDENTIAL INVENTORY SHEET

To supplement inventory information, extensive research was carried out in deeds, tax records, and building permits; the results were summarized on research sheets such as the one in Fig. 6. By this method, all buildings mentioned in this report – and many others – were dated specifically, providing a firm basis for general statements about Cambridgeport architecture. Maps and real estate atlases were used to trace development patterns and to confirm field estimates of building dates. Articles in 19th-century issues of the *Cambridge Chronicle* and *Cambridge Tribune* were valuable sources of information about major buildings, particularly churches, schools, and civic and institutional buildings. Secondary sources such as Paige's *History of Cambridge,* Gilman's *The Cambridge of 1896,* Kennedy's article on Cambridgeport in *The Zone of*

CAMBRIDGE ARCHITECTURAL INVENTORY -- INDUSTRIAL

ADDRESS 270 Albany St.

DATE 1920 ARCHITECT not given

BP NO. 20178 BUILDER W.A. + H.A. Root, Inc.

ORIG. OWNER/OCCUPANT Standard Plate Glass

USE glass mfg. now box mfg.

PRESENT OCCUPANT Box Craft, Atlantic Paper Box

207/33

207/35

PLAN AND DIMENSIONS 100' front x 190' deep

ACCESS trucks - rt. side office ent. – left corner bay-front
RR - rear

NO. OF STORIES 2 ground level (raised)

STRUCTURE reinf. conc. – fireproof
conc. frame, piers, fl. + rf. brick curt. walls

BAY SPACING 18'

WALLS brick under windows + in cor. bays + parapet
otherwise, conc.

WINDOWS steel fact. sash

SILLS conc. LINTELS conc.

ROOF flat

CORNICE/PARAPET front – cor. bays emphasized

OTHER ORNAMENT

REMODELING —

Cambridge Historical Commission By RBR Date 4/27/69

5. SAMPLE INDUSTRIAL INVENTORY SHEET

ADDRESS: 120 Norfolk st.

DATE	REF.	GRANTOR	GRANTEE	PRICE	DESCRIPTION
30 Mar. 1836	351-323	William Fisk of Cambridge, merchant	Charles Davenport of Cambridge, coach builder	$650	land, lots 82 + 83 of Carleton pl., 1804, 156 - and W. - S. - Worcester st. 81' W. - Norfolk st. 80' N. - lot 81, 75' E. - lot 84, 80' conditioned: no bldg. to be built within 5' of the streets; conv. by Joseph Badger + Isaac Dupee, 26 Mar 1836 + 28 Mar 1836
1836	tax		Charles Davenport	600	1 poll 1 lot
1837	"		"	3500	1 ho.
1838 1839	"		"	3700	"
1845 1846	"		"	2900	"
31 Oct. 1846	496-390	Charles Davenport of Cambridge, car builder	Melvin + Page of Cambridge, carpenters	$3500	land + bldgs. [bd. + descr. as above] same conv. by 351 - 323
1847	tax		Isaac Melvin	3000	1 ho. Norfolk - sold Webber
1848	"		Norman Webber	3300	1 ho. Norfolk st.

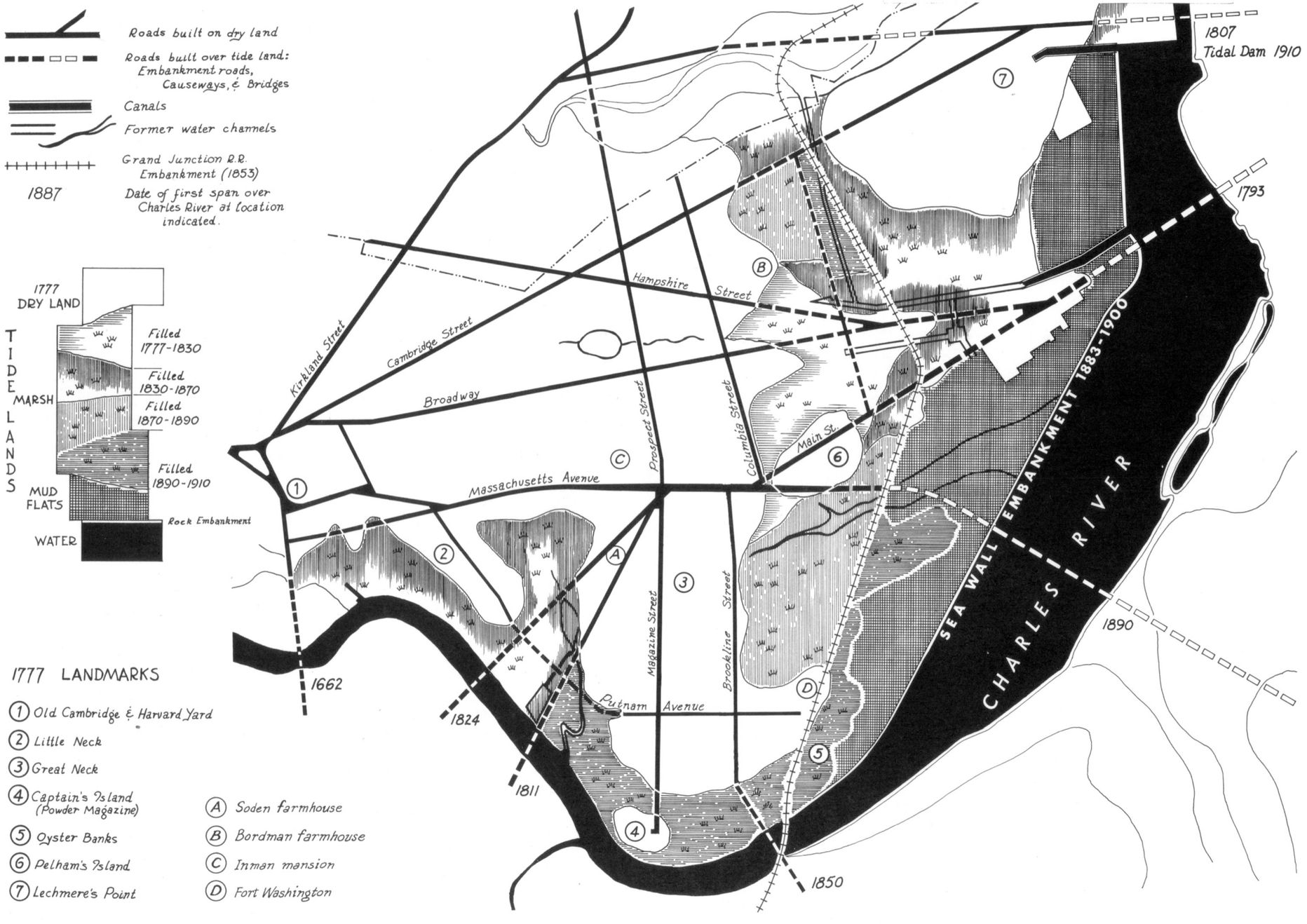
CAMBRIDGE HISTORICAL COMMISSION RESEARCHER: R HN DATE: May '69

6. SAMPLE RESEARCH SHEET

Emergence, and various articles in the Cambridge Historical Society *Proceedings* were consulted for historical background. A more complete bibliography is printed at the end of this report.

The report is divided into four parts. The first is a chronological summary of Cambridgeport history – topographic, economic, and social. The second, concerned with residential architecture, discusses the various types of Cambridgeport residential buildings and the major 19th-century styles. The third treats non-residential architecture – churches, schools, civic and institutional buildings, commercial buildings, industrial buildings, and M.I.T. buildings. Part Four discusses Cambridgeport streets and neighborhoods in environmental terms, with comments about their potential for preservation. A brief conclusion also touches on the preservation issue.

Authors of the Cambridgeport report were Colin Diver for the history section (with contributions by Robert Nylander and Michel Choban); Robert Rettig for residential types; Bainbridge Bunting for residential styles; Susan Vogel for churches; Robert Rettig for schools, civic and institutional buildings, commercial buildings, and industrial buildings; Alice Lyndon for M.I.T. buildings; and Bainbridge Bunting for area characterization. As editor, Robert Rettig was responsible for the introduction, conclusion, bibliography, and various transitional paragraphs. Photographers and draftsmen are identified in the illustration credits at the end of the report.


Roads built on dry land
Roads built over tide land: Embankment roads, Causeways, & Bridges
Canals
Former water channels
Grand Junction R.R. Embankment (1853)
1887
Date of first span over Charles River at location indicated.
1777 DRY LAND
TIDELANDS
MARSH
MUD FLATS
WATER
Filled 1777-1830
Filled 1830-1870
Filled 1870-1890
Filled 1890-1910
Rock Embankment
1777 LANDMARKS
1 Old Cambridge & Harvard Yard
2 Little Neck
3 Great Neck
4 Captain's Island (Powder Magazine)
5 Oyster Banks
6 Pelham's Island
7 Lechmere's Point
A Soden farmhouse
B Bordman farmhouse
C Inman mansion
D Fort Washington
Kirkland Street
Cambridge Street
Broadway
Massachusetts Avenue
Prospect Street
Columbia Street
Hampshire Street
Main St.
Magazine Street
Brookline Street
Putnam Avenue
SEA WALL EMBANKMENT 1883-1900
CHARLES RIVER
1662
1824
1811
1850
1890
1793
1807
Tidal Dam 1910

PART ONE: HISTORY OF CAMBRIDGEPORT

From the founding of Cambridge in 1630 to the opening of the West Boston Bridge in 1793, the history of Cambridgeport was quiet and uneventful. Primarily agricultural, the area looked west to Old Cambridge rather than east to Boston. The building of the West Boston Bridge (where the Longfellow Bridge now stands) opened up new commercial possibilities, including plans for the development of a port – hence the name, Cambridgeport. Although these plans were short-lived, the area did develop as a residential suburb and as a commercial link between Boston and the inland farming communities of Middlesex County. Cambridgeport's most significant growth occurred in the latter half of the 19th century, when industry moved in and when extensive housing was built to accommodate the rapidly increasing population. The industrial-residential character established in those years still prevails through most of Cambridgeport.

The early 20th century brought Massachusetts Institute of Technology to the district. Facing Boston across the newly-formed Charles River Basin, the institute turned its back on industrial Cambridgeport and had little immediate effect on its surroundings. Since World War II, however, the expansion of M.I.T. and the related redevelopment of Kendall Square have brought profound changes to the eastern part of the district, as heavy industry has gradually been replaced by office and laboratory space. Residential Cambridgeport is also changing, partly due to expansion of the university communities (Harvard on the west, M.I.T. on the east). This history of Cambridgeport will concentrate not on current changes in the community but on the various factors – topographic, economic, and social – that brought it to its present state.

Cambridgeport history may be divided into five principal divisions: the sleepy early period, 1630-1793, when the district was farm and marshland; the period of initial development, 1793-1815, following construction of the West Boston Bridge; the period of road-oriented commerce, 1815-1850; the period of industrialization, 1850-1916; and the period of 20th-century changes in scale and in character.

1630–1793: Farm and Marsh

Before Cambridge was settled in 1630, the site of Cambridgeport consisted of low-lying, partially wooded land bordered by swamps and marshes along the Charles River. In addition to the principal land mass, which the first settlers of Cambridge called "The Neck" (No. 3 on map, Fig. 7), three smaller tracts of land rose above the marshes: Pelham's Island (No. 6), twenty acres along Main Street east of Lafayette Square; Captain's Island (No. 4), five acres at the end of Magazine Street; and Wigwam or Little Neck (No. 2), forty-five acres along Putnam Avenue.

From the beginning the higher areas were valued as farm and pastureland, the marshes and riverbed as places to gather salt hay and oysters. Lots of various sizes were parceled out in the 1630's, but the owners never considered living on the land; they saw it only as an agricultural adjunct to Old Cambridge. Early roads thus developed simply as ways to and from the main settlement. Following roughly the line of Massachusetts Avenue was a "highway to Pelham's Island," off which ran two roads: a "highway to the Little (Wigwam) Neck," following approximately the route of Putnam Avenue, and a "highway to the oysterbank," running south from the present intersection of Pleasant Street and Massachusetts Avenue.

The initial division of Cambridgeport lots was obliterated by the mid-17th century, as several prominent landowners bought out the original grantees. The area was thus reorganized into three large farms in addition to smaller holdings, a condition that did not change until the proprietors or their successors saw speculative attractions in the land at the beginning of the 19th century. In the third quarter of the 18th century, the three large holdings were the Soden farm, the Bordman farm, and the Inman estate.

The main building of the Soden farm stood near the present intersection of River and Pleasant Streets ("A" on map, Fig. 7). Thomas Soden apparently lived there from about 1720, assembling the land by deed and lease in the subsequent decades. Much of the Soden farm was sold in 1777 to Judge Francis Dana, who by the early 1800's had acquired through purchase or inheritance over half of Cambridgeport south of Massachusetts Avenue. Among the Dana holdings was Captain's Island, originally granted to Captain Daniel Patrick, trainer and driller of the colony's militia. The Dana estate sold Captain's Island to the Commonwealth in 1817 as the site for a powder magazine – hence the current names of Magazine Beach for the tip of Cambridgeport and Magazine Street for the road leading there.

The Bordman property, with its farmhouse on the present Plymouth Street between Webster Avenue and Berkshire Street ("B" on map, Fig. 7) was part of the old Phips estate, which before its partition in 1759 had included all of East Cambridge and a large section of eastern Cambridgeport. Andrew Bordman, the third of that name, inherited his Cambridgeport land from his mother, Sarah Phips Bordman, eldest daughter of Spencer Phips. Andrew Bordman, who played an important role in the early 19th-century development of Cambridgeport, lived on the land from 1796 until his death in 1817 – first in the old farmhouse, then in a new house at Windsor and Hampshire Streets.

The third large Cambridgeport holding was the Inman estate, located between Massachusetts Avenue and the Somerville line. Originally put together by Roger Harlakenden, a 17th-century settler, the land passed after his death to his widow's new husband, Herbert Pelham, who gave his name to Pelham's Island. Several Pelham descendants held the land before Ralph Inman acquired it in 1756. That year, Inman, a prosperous merchant, built a sizable mansion near the present intersection of Inman and Austin Streets (Fig. 8; "C" on map, Fig.7). Though the Inman house and land fall geographically within the Dana Hill survey area and are discussed in the Mid Cambridge report (pages 13-14), they have equally strong associations with Cambridgeport history and thus must be mentioned in this context. Ralph Inman, a Tory, was forced to flee at the time of the Revolution, during which his house was used as barracks for troops and as

8. INMAN HOUSE, INMAN ST. OPPOSITE AUSTIN ST., 1756.
PHOTO BEFORE 1873 MOVE TO BROOKLINE ST.

9. INMAN HOUSE AT BROOKLINE AND AUBURN STS.
1955 PHOTO. DEMOLISHED 1961

headquarters for General Israel Putnam. In 1873 the house was moved to the corner of Brookline and Auburn Streets, where it served as a tenement house until its demolition in 1961. Fig. 9 shows it shortly before demolition.

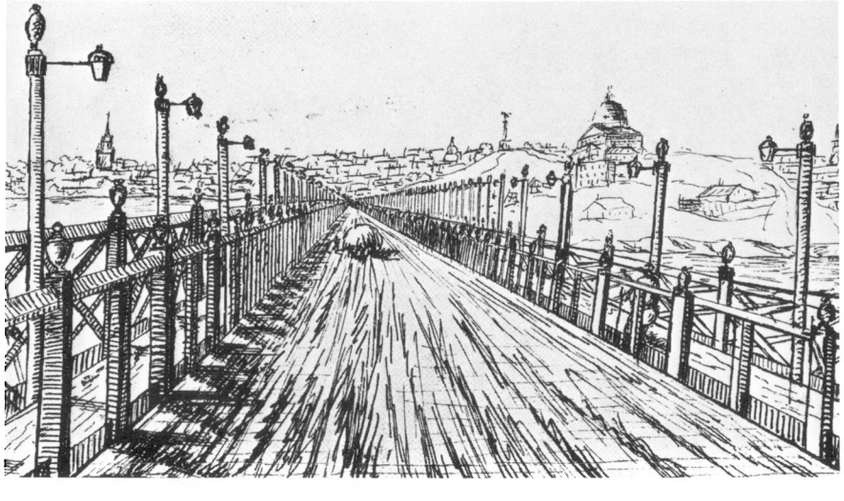
Other than occupation of the Inman house, there was little activity in Cambridgeport during the Revolution. In conjunction with fortifications on Dana Hill, several small earthwork redoubts were constructed in the area. (See Fig. 10, a portion of Henry Pelham's 1777 map of Boston and vicinity.) The more important included "Fort No. 2," located near the intersection of Franklin Street and Putnam Avenue, and "Fort No. 1," probably located at River Street and Putnam Avenue. A three-gun battery was situated near Pelham's Island; another was at Allston and Waverly Streets. The latter battery, restored in 1858, survives as Fort Washington (Figs. 11, 21, and 394; "D" on map, Fig. 7). The Cambridgeport fortifications, along with those on Dana Hill and in East Cambridge, protected the city from attack by covering the river and approaches

10. CAMBRIDGEPORT IN THE REVOLUTION.
DETAIL FROM PELHAM MAP OF 1777

from the river. This seems to have been the first time that Cambridge citizens saw how easy access to Boston might be through the Cambridgeport area. The forts of the Revolution were the first structures in the city to point away from Old Cambridge toward the river and Boston.

11. FORT WASHINGTON. 3-GUN BATTERY, 1775. PUBLIC PARK, 1857

12. WEST BOSTON BRIDGE, 1793. 1797 VIEW.
SITE OF PRESENT LONGFELLOW BRIDGE (FIG. 28)



1793–1815: Initial Development

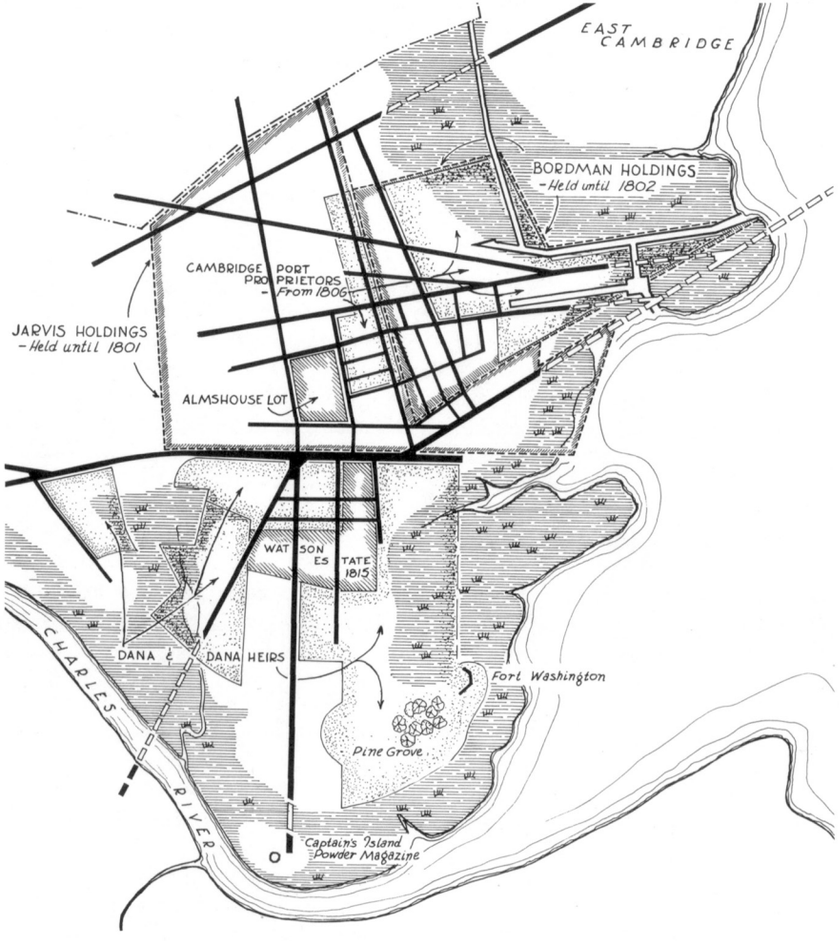
The opening of the West Boston Bridge (Fig. 12) on Thanksgiving Day, 1793, marked the beginning of Cambridgeport as a settled area. The "way to Pelham's Island" became a main thoroughfare to Boston, and, despite the surrounding salt marsh, the causeway to the bridge (Main Street) was immediately recognized as an important commercial location.

Before the year was out, Robert Vose and Royal Makepeace had built a store on the north side of the causeway. The following year Vose built a house for himself opposite the store, and in 1795 Leonard Jarvis (who owned the Inman estate from 1792 to 1798) built a tavern east of the store. Within a year or two a cluster of half a dozen buildings, mostly stores and shops, had grown up on what had been Pelham's Island. Judge Francis Dana and Leonard Jarvis began to build canals and dikes to drain some of their land nearby, but Jarvis's part in this project (and in Cambridgeport development in general) was cut short in 1798, when the United States government took possession of his property for failure to pay a $40,000 debt.

Dana then shifted his activity to a portion of his estate nearer his Dana Hill mansion. In 1800 and 1801, in agreement with an adjoining owner, William Watson, and in order to straighten lot lines, he laid out the streets now called Brookline, Pearl, and Franklin. "Squares" of 100-foot house lots were established, and parallel streets were put through them. Both Dana and Watson sold lots fronting on Massachusetts Avenue, Franklin Street, and Auburn Street. On a lot on the north side of Massachusetts Avenue, Josiah Hovey built Hovey's Tavern (Fig. 281). Another tavern, a store (also Hovey's), and a handful of dwellings created a small center around the haymarket (Central Square). In spite of these early lot sales, Dana's Cambridgeport land purchases amounted to substantially more than his sales. Watson and several other landowners south of Massachusetts Avenue also kept more than they sold. Their holdings and others of the early 19th century are shown on the map in Fig. 13.

A boost to settlement came when the Federal government sold the Jarvis property at auction in 1801, opening up land at Lafayette Square and on both sides of Main Street. One of the new landlords, Jonathan Austin, laid out Austin Street through part of his property and established house lots there. His financial success encouraged other landowners to offer both large tracts and small lots for sale.

In 1805, two important new roads connecting the bridgehead with inland towns were authorized: Broadway (originally part of the Cambridge and Concord Turnpike) and Hampshire Street (originally part of the Middlesex Turnpike). The easterly portion of Harvard Street (then called Canal Street) was laid out in 1804, and its westerly extension to Old Cambridge followed in 1808. Webster Avenue (originally called Medford Street) was opened before 1809. All these routes converged on the West Boston Bridge. In the northerly part of Cambridgeport, Cambridge Street was put through in 1809 to connect the Canal Bridge in East Cambridge with Harvard Square, and in the southwest, River



13. EARLY 19th-CENTURY LANDHOLDINGS IN CAMBRIDGEPORT

Street (originally called Brighton Street) connected the River Street Bridge of 1811 with Central Square and Prospect Street (the latter laid out in 1804). Thus, in the first period of Cambridgeport development, major transportation routes were established that influenced all subsequent development and are still in active use today. Cambridgeport transportation patterns were, and are, bridge-oriented.

The high point in the early history of the district occurred in 1805, when Cambridgeport was declared a United States port of delivery. Two persons, Rufus Davenport and Royal Makepeace, were influential in launching the seaport idea. Davenport an ambitious, enterprising businessman, began an informal partnership with Makepeace in 1803, the former finding the money and the latter doing the legwork. They assembled large tracts of land by buying up small marsh lots around the causeway from descendants of original grantees. They also acquired portions of the Jarvis estate and a 65-acre tract from Andrew Bordman's farm. With three other landowners (Josiah and Daniel Mason and Charles Clark), they incorporated as the Cambridgeport Proprietors. With interest in the venture proportional to the amount of land each had invested, Davenport and Makepeace held 80 out of 100 shares.

Over their lands the Proprietors established a network of canals for the port and a canal-oriented street and building-lot pattern around Broadway and Hampshire Street. Lots here were sold in 1805 and 1806, with restrictions that any building should be at least three stories high and constructed of brick or stone. A few rows of such buildings were built on Broadway and Harvard Street. Small house lots (40 by 80 feet) around Worcester and Suffolk Streets began to sell, as did generous 100-foot-square lots offered by Andrew Bordman near Washington, Pine, Cherry, Moore, and Clark Streets. Although growth was sparse, houses arose in greater numbers on these lots than on Dana and Watson land south of Massachusetts Avenue. As if to lend assurance to this growth, Andrew Bordman built a three-story mansion for himself on the corner of Windsor and Hampshire Streets, where it still stands, much altered and moved to the rear of the lot (Fig. 63).

Although still remote and marshy, with high tides overflowing cellars, Cambridgeport – at least in the hopes of Davenport and Makepeace – was a promising commercial center. Wharves, such as Josiah Mason's at the end of the causeway (Kendall Square), appeared along the canals. Gravel was brought in to fill drained marshes; fruit trees and gardens were planted. Young men from the country established themselves in "mechanical employments" and "trade with the interior." Deeds show that a large number of the first settlers were housewrights, carriage builders, curriers, harness makers and leather workers, hatters, glaziers, paper makers. Stores and taverns like Mason's, Hovey's, and Kimball's flourished along the roads leading in from the country – Broadway, Hampshire Street, Massachusetts Avenue and Main Street. In 1806, five years after the Jarvis sale, Dr. Abiel Holmes estimated that the Port's population had grown to 1000.

In 1802 there were enough children in the district to warrant starting a school, which was built on a lot donated by Andrew Bordman at the corner of Windsor and School Streets. The following year a fire engine was bought. To fill the need for a meeting house, the Cambridgeport Meeting House Corporation was formed, with Davenport and Makepeace holding not quite half the 100 shares. A public square at Columbia and Harvard Streets was set aside – half donated by Bordman, half by the Proprietors – and on it a large brick meeting house was built in 1807 (Fig. 170). Provision was also made that if Middlesex County should so desire, it could have the east half of Meeting House Square for its buildings.

On the west side of the square was Columbia Street, envisioned by the Proprietors as the main axis of their city. Across from the meeting house they laid out "Eight Block Place" as the shopping center of the city-to-be. Farther along, small lots lined each side of the thoroughfare, but the Cambridge Selectmen refused to accept Columbia Street in 1806 because not a single house had been built on it. A parsonage lot was located at the corner of Harvard and

Prospect Streets in 1808, and the land between it and Eight Block Place was purchased for a burying ground in 1811. Sennott Park (Fig. 378) now occupies the burying-ground site.

Thus established in the hopes of its proprietors and physically laid out into streets and lots, Cambridgeport came legally into existence on March 1, 1808, by act of incorporation. Already, however, the Embargo of 1807-1809 had gone into effect, and although a committee headed by Royal Makepeace, Francis Dana, and Samuel Fay protested to President Jefferson, they could do little else. Land values plummeted and commercial ventures faltered. In 1812 came the war. By the time peace was restored in 1815, any hope for Cambridgeport as a great commercial city had been dashed; instead, the manufacturing activities of East Cambridge were attracting attention formerly given to the Port.

The canals that had been dug to accommodate coastal shipping remained to block industrial progress until the 1870's, when they began to be filled in – a process that has continued to the present. Davenport and Makepeace were financially ruined, their land almost as worthless as the idle canals they had built. Lots that had sold for $500 to $1000 at the height of speculation went for $10 or less. People like Jonas Wyeth and James Otis, who had commenced to stake out streets and lots south of Massachusetts Avenue around Pleasant Street, passed on their land empty and undeveloped to descendants. The Danas, whose holdings south of Massachusetts Avenue were more extensive than anyone else's, were not inclined to sell until the second quarter of the century.

Although trading enterprises along the main street were still active, Cambridgeport was a drowsy settlement, a fitting location for the almshouse built on Norfolk Street in 1818. All that the Port could point to that served more than local needs was the state powder magazine on Captain's Island, also built in 1818.

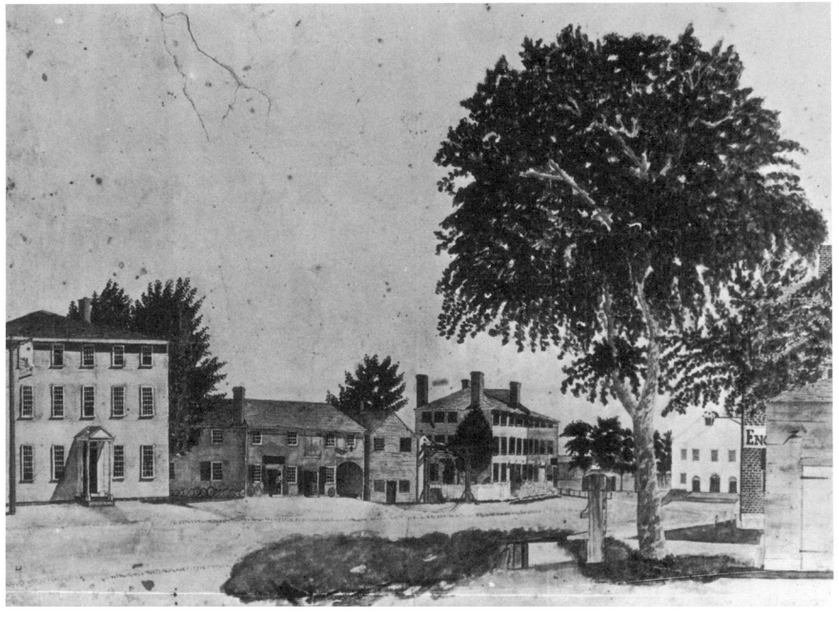
1815–1850: Trade Route and Suburb

After the speculative boom and bust of the early 1800's, Cambridgeport settled into a more realistic role as a Boston-oriented commercial suburb. Fig. 15 shows the pattern of land use at the beginning of this period. The Cambridgeport economy depended heavily on commercial traffic passing to and from Boston via the West Boston Bridge. The bridge and related street transportation made commuting so easy that a large number of Cambridgeport residents held jobs in Boston. Later, the Charles River's advantages for shipping were rediscovered as an adjunct to manufacturing, increasing the Port's tendency to look to Boston and the east for its livelihood. The reliance upon Boston and the Charles is further explained by the fragmentation of Cambridge. Until the 1840's, when Dana Hill was developed, a good half-mile strip of woodland kept the Port physically separated from the rural, college-centered community of Old Cambridge, and extensive marshland on the northeast isolated the Port from East Cambridge. (See the Hales map of 1830, Fig. 16.)

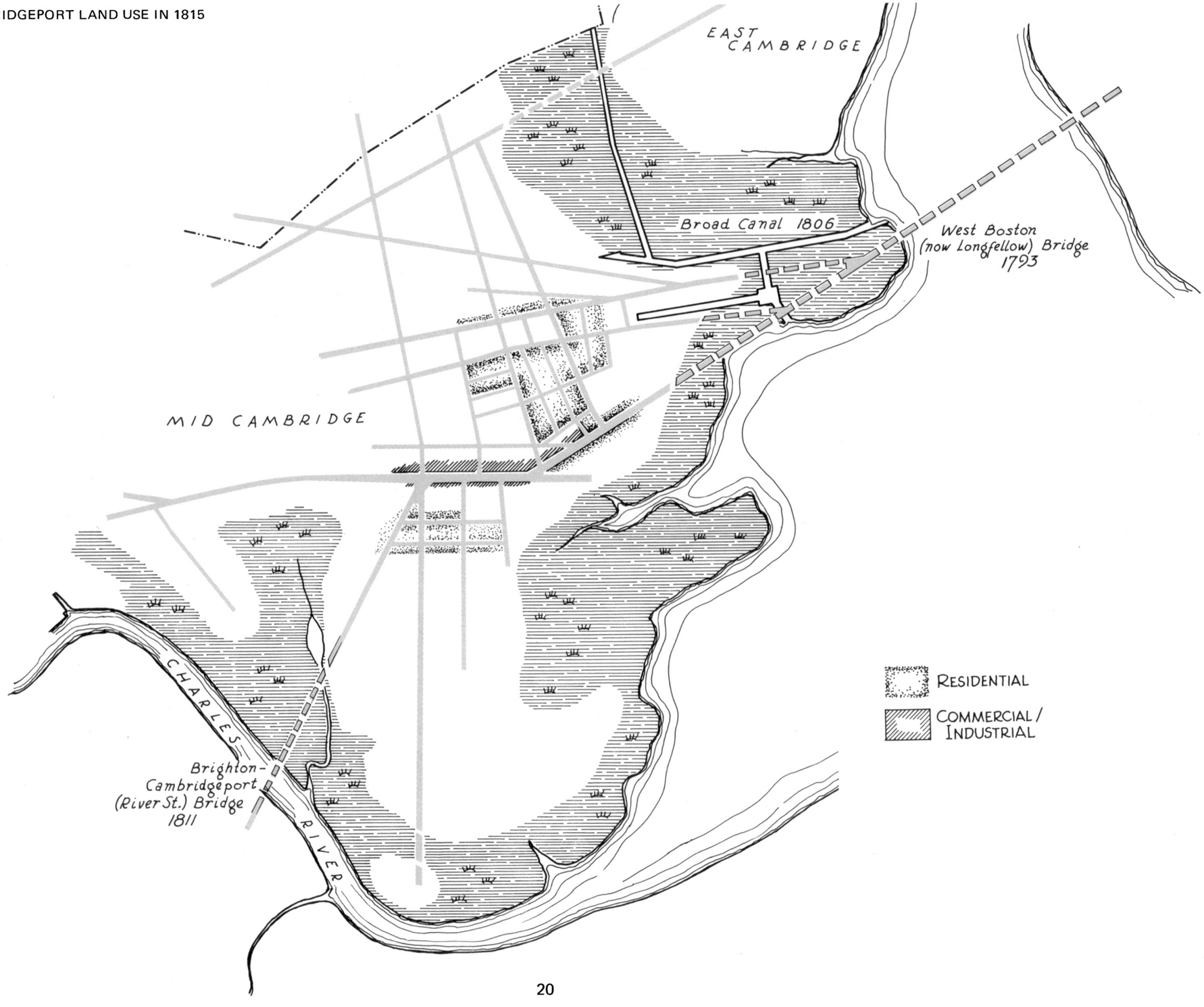
The commercial hegemony of Main Street and Massachusetts Avenue was established early in the 19th century. As the main thoroughfare from the bridge to Old Cambridge and points west, this road occupied a dominant position. The building of inns and other commercial structures converted the avenue from a market center at the haymarket (now Central Square) to a business strip stretching from Inman Street on the west to Windsor Street on the east. Fig. 14 shows Lafayette Square as it looked in the mid-1820's, with Hovey's Tavern on the left. In 1849, 83 out of the 100-odd retail shops in Cambridgeport were located along Main Street and Massachusetts Avenue; small manufacturing concerns and workshops were also located there. As late as 1865, 80% of the Port's shops and stores were along this strip. The rest were beginning to align themselves along the other major northwest-southeast thoroughfares – Broadway, Harvard Street, and Hampshire Street.

Attempts were made to exploit the commercial possibilities of the Lower Port, the district along the causeway and canals. The Hales map of 1830 (Fig. 16) represents this district as unimproved salt marsh, except for the causeway embankment near the junction of Broadway, where seven buildings were located – two taverns and five stores or houses. In the next two decades several wharves were built along the causeway near what is now Kendall Square. For the most part, these wharves were used for the lumber, coal, and stone trades – a different kind of use from that envisioned by the early port developers, who had in mind international trade rather than coastwise shipping of wholesale lots of bulky material.

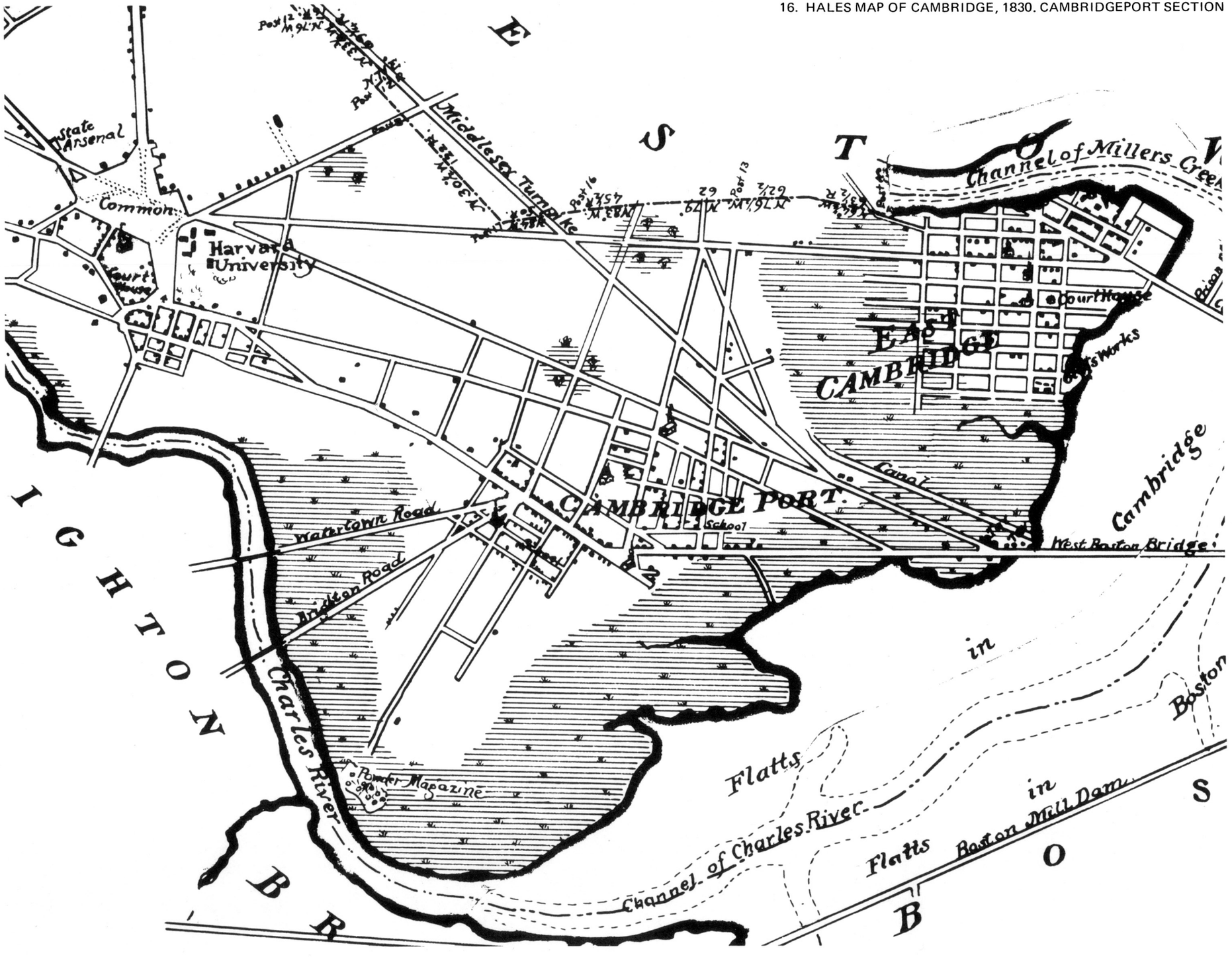
14. LAFAYETTE SQUARE IN MID-1820's. AT LEFT: HOVEY TAVERN OF 1802. PARTLY VISIBLE BEHIND TREE: FIRST UNIVERSALIST CHURCH OF 1822



15. CAMBRIDGEPORT LAND USE IN 1815



16. HALES MAP OF CAMBRIDGE, 1830. CAMBRIDGEPORT SECTION



The lumber trade had thrived at the junction of Broad Canal and Charles River since the beginning of the 19th century. The largest yard for most of this time was run by George Gale near Court Street. By mid-century his lumber business (Burrage, Gale and Company) was rivalled by four others along the causeway. With no adequate land transportation to compete with it, the river continued to be the leading commercial highway serving Cambridgeport well into the 1860's, even in spite of the obstacle offered by the several bridges at the east end of the basin.

Although Cambridgeport was one of the earliest industrial centers near Boston, the evolution from small-scale manufacturing to heavier industry went on at a snail's pace prior to 1850. Before the coming of the railroad and the establishment of a large unskilled immigrant labor market, very few large manufacturing concerns existed in the Port. Most of the important early industries were small-scale, often skilled trades, including the manufacture of cabinets, furniture, ropes, bricks, cigars, and leather. Soap-making was perhaps the only industry practiced on a large scale during this period. Soap-making began in Cambridgeport in 1804, when Nathaniel Livermore set up a factory on Main Street near Columbia Street as the firm of Livermore, Crane and Whitney. In 1828 Charles Valentine established one of the largest manufacturing firms in the Port, a soap factory located at the southerly corner of Valentine and Pearl Streets. The business changed hands in 1845, becoming the C. L. Jones Soap Works. The Davis family began to establish its leadership in the industry in the 1830's, going on to make soap a Cambridgeport staple. In 1835 Curtis Davis began to manufacture soap in a factory at the corner of Broadway and Davis Street. In 1840 Isaac Davis set up a soap factory just across the street, and Eliphalet Davis followed suit at Main and Windsor. Eventually, the firm of Lever Brothers was to take over the Davis soap-making operations.

Before 1850, the largest single plant in the Port was the Charles Davenport Car Manufactory, founded in 1832 at the rear of 579-587 Massachusetts Avenue (Fig. 288) and located after 1842 at the southeasterly corner of Main and Osborn Streets. Specializing in the manufacture of carriages, stages, and, later, railroad cars and engines, Davenport's firm gained national renown. By mid-century the plant sprawled over the entire block from Osborn Street to Portland Street on the south side of Main (Fig. 289).

Other important mid-century industries (many of which are shown on the map of Cambridgeport land use in 1865, Fig. 18) were confectionery, bacon-curing, and box-making. Royal Douglass began making confections in Cambridgeport in 1826 on the north side of Massachusetts Avenue. Later his firm was joined by those of Isaac Lum at Broadway and Hampshire Street and Jeremiah Wetherell on Essex Street. Ebenezer Hovey established his bacon works in the 1840's on what in now State Street. Later Avery Howe established a bacon-curing plant next door, on the corner of Windsor and Main. In 1845 George Page set up an extensive box-making operation on the Broad Canal at the junction of Broadway and Hampshire Street. Expanding later to the south and west, his firm became a leading Cambridgeport business. Another box-making firm was that of Dalphon Osborn, occupying a large lot on the southerly corner of State and Osborn Streets. Cambridgeport was a good location for box making, because lumber from Maine could be shipped directly to wharves on the canals, and customers for the finished product were on hand in Boston.

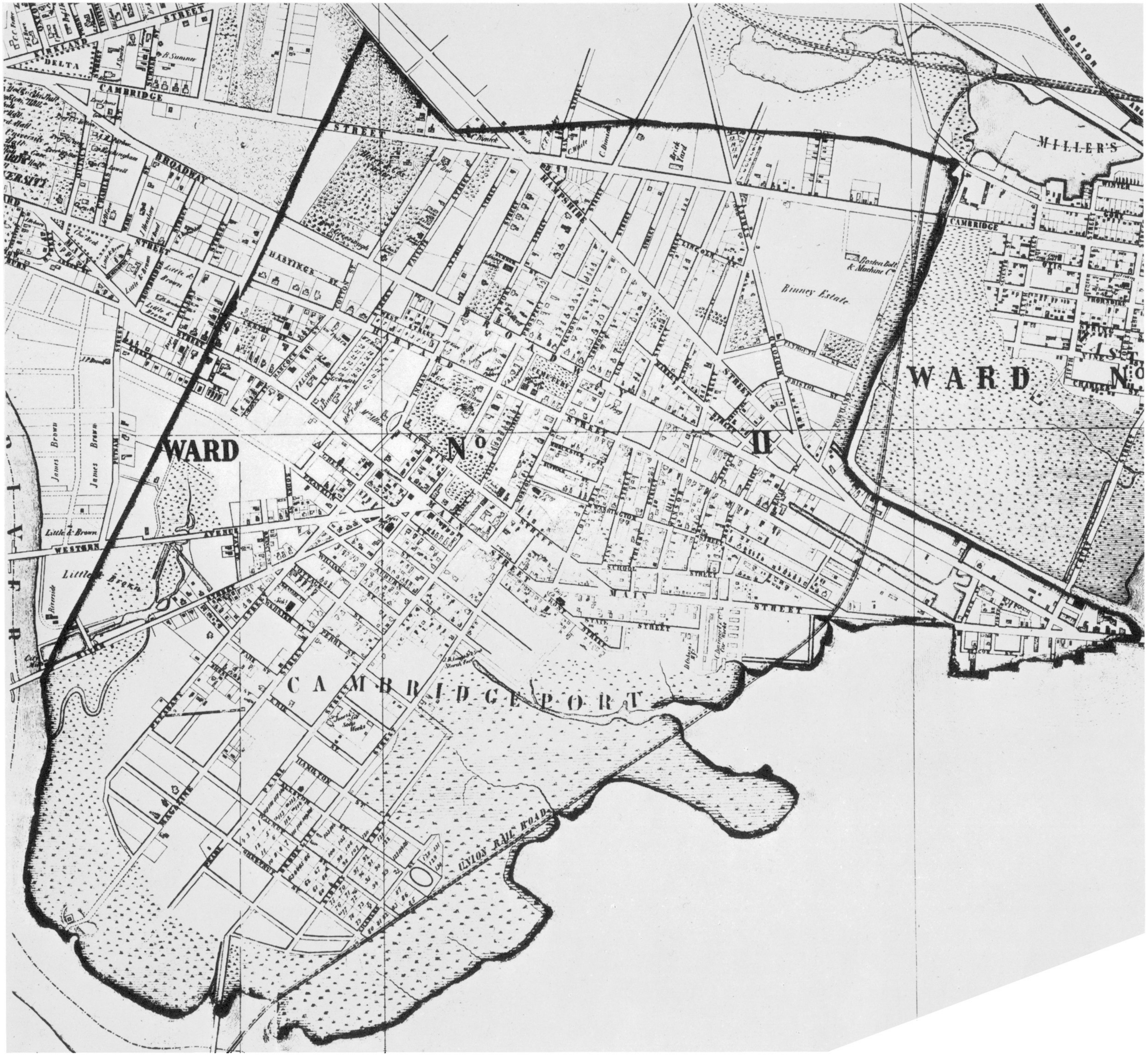
The early progress of street transportation in Cambridgeport offers further evidence of the area's growth and dependence on Boston. A public conveyance to Boston was established in 1793 just after the opening of the West Boston Bridge. At first there was only one trip a day between Boston and Harvard Square via Main Street and Massachusetts Avenue. By 1795 Nathan Stimson and Joseph Seaver were running two trips daily along the same route. The means of transport in those early days was a horse-drawn three-seater stage or omnibus. As early as 1819, a Boston-based coach line ran half-hourly service to Harvard Square via Cambridgeport; the fare was 25 cents to Harvard, 12½ cents to the Port. Fig. 19 shows a mid-19th-century omnibus, just as that type of public conveyance was about to be supplanted by the horse railway.

Neighborhood development in early 19th-century Cambridgeport was slow and rather haphazard, since land was plentiful and population growth slow. The suburban population – by far the majority – was strongly oriented toward Boston and the Boston-based commercial traffic. Houses were clustered along Main Street and the commercial highways to the north, the greatest concentration occurring at the eastern end of high land, near Windsor Street, within easy reach of the West Boston Bridge. Thus the part of Cambridgeport north of Main Street developed more quickly than the southern part, although not all at once. Other sections remained semi-rural in character.

North of Massachusetts Avenue, most of the major streets had been laid out in part or in full by 1820. As the suburb continued its leisurely growth, streets were extended and a few new ones built. Land was mostly held in small parcels and sold piecemeal as demand arose. One exception was the former Almshouse site on Norfolk Street, which was subdivided in 1836, the year the Almshouse burned. Later the previously undeveloped parts of the Jarvis estate north of Broadway were purchased by the Lechmere Point Corporation and cut into building lots. Most of these lots were taken up for residences in the late 1830's and early 1840's. By 1850 the street pattern of northern Cambridgeport was almost the same as it is today. Houses were spread out quite evenly throughout the district, with very few vacant blocks but dozens of vacant lots. (See the Walling map of 1854, Fig. 17.)

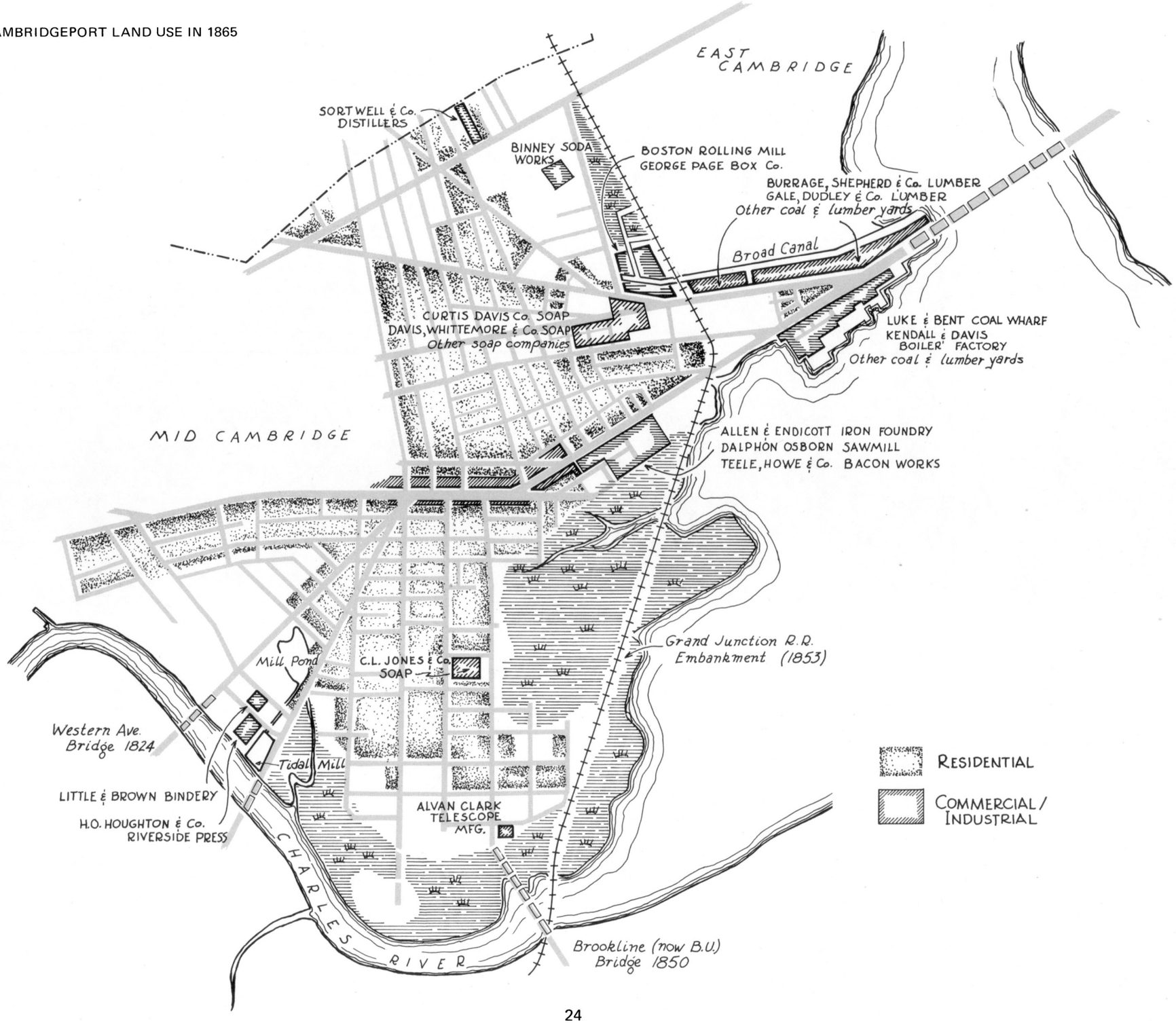
Before 1850 the triangle of land north of Hampshire Street and south of the Somerville line was sparsely settled, mostly as an overflow from central Cambridgeport. Much of this land had belonged to the Bordman and Lechmere farms in pre-Revolutionary days, and during the early 19th century it was largely owned by the Lechmere Point Corporation or the Cambridgeport Proprietors. Since the land was low-lying or swampy, only a small amount of building had taken place on the periphery of the district by the 1850's. The two companies or their consignees continued to hold much of the area until after the Civil War.

Early plans of the Hampshire Triangle do not give a good indication of its development because they fail to differentiate between streets that were in use and those that were only planned. Actual growth was slow. As early as 1806, the street system of Cambridgeport was projected toward what is now Donnelly Field, and the area was divided into house lots, but land sold so slowly that many of the streets were never put through. Only one lot was built on by 1830, and that house (28 Berkshire Street, 1806) has been so completely altered as to



17. WALLING MAP OF CAMBRIDGE, 1854. CAMBRIDGEPORT SECTION

18. CAMBRIDGEPORT LAND USE IN 1865



be almost unrecognizable. The only other structures in the Hampshire Triangle shown on the Hales map of 1830 (Fig. 16) were a few houses on Cambridge Street and a few near Hampshire.

As with the Hampshire Triangle, southern Cambridgeport was so remote that residential construction was long confined to the main thoroughfares. Indeed the district remained almost rural, with a thick grove of pine trees growing northwest of Fort Washington (the vicinity of modern Hamilton, Chestnut, Pearl, and Sidney Streets). Most of the district was held in large parcels as fields or woodlots; the principal landowners were members of the Dana family.

In the 1830's, Pearl and Brookline Streets reached only half their present lengths. Magazine Street extended to the Powder House but had only one building below Cottage Street – the house of Magazine Keeper Peter Tufts, Jr., at Tufts Street. The only other buildings in the vicinity were Charles Valentine's slaughter house and soap works on Pearl Street near Valentine and a cluster of four houses on Pleasant Street near Fairmont.

Nevertheless, the seclusion of southern Cambridgeport must have held charm for a few others. In the late 1830's, Sidney Willard, retired Harvard professor, built a house in the Pine Grove next to Fort Washington. Beginning in 1838, Edmund Dana attempted to develop the area by laying out a grid of streets and projecting several stately squares comparable to those later constructed in the South End of Boston or in other close-lying suburbs. But sales were slow, and only two squares, Hastings and Dana, were ever built.

Residential construction spread slowly south from Main Street. In 1833 Sarah Dana put the old Soden farm near Pleasant and River Streets on the market. A few parcels were purchased for residences, but much of the land remained in her hands for years. River Street, the main line of communication between Central Square and Brookline, attracted a few residents. By 1850 Pearl and Brookline Streets had been extended almost to the river, but very few cross streets had been built, and there was little house construction. Most Cantabrigians continued to think of southern Cambridgeport as a marshy and wooded wilderness.

The demography of early Cambridgeport reflected its suburban character. Much of the population consisted of craftsmen, service workers, and retail tradesmen, many of whom presumably worked along Massachusetts Avenue and Main Street, although a good proportion must have held jobs in Boston. The earliest statistics, taken from the first Cambridge Directory (1848), indicate that 26% of the Port's population worked across the river. The inhabitants were almost all of New England Yankee stock, the chief exception being a few Negro servants and laborers. Extremes of wealth and poverty were absent from this homogeneous middle-class population.

One exceptional Cambridgeport resident was the painter Washington Allston (1779-1843), who spent the last thirteen years of his life in the Port. The celebrated artist moved in different circles from most Cambridgeport residents. Recollections of the Port in that period speak of him as a grand, somewhat shadowy gentleman – a legend in his own time.

After his marriage to Martha Dana in 1830, Allston lived in a brick house (built in 1806, burned 1852) at 172 Auburn Street. His painting room or studio (built 1831, moved 1867 and subsequently destroyed) stood at the corner of Magazine and Auburn Streets. Next to it in 1841 Allston designed and built a new house (destroyed 1870) "in a somewhat different style from our dwelling houses here." The site of this later house and of the studio is now occupied by a brick mansard row known as Allston Terrace (13-21 Magazine Street, Fig. 144). Allston never lived on the street now named for him, though part of Allston Street runs on land formerly owned by his wife.

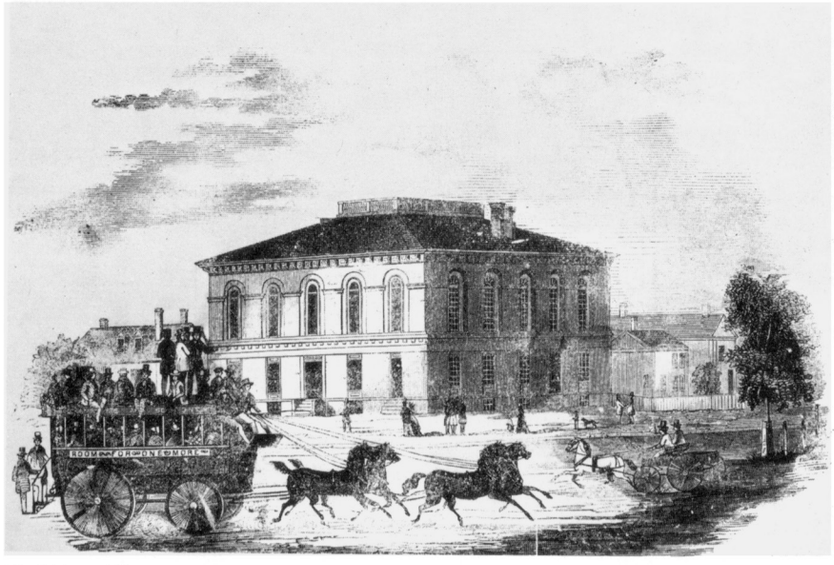
In a letter written the week after his marriage, Allston hints at his attraction to the Port. Describing his house and surroundings, he wrote:

> It is a snug, commodious little mansion, prettily situated in a retired part of this village, and commanding a pleasant view of the adjacent country, taking in a part of the river and a picturesque little pine wood, which used to be a favorite haunt of my younger days....

Ten years later, he was less rapturous about the Cambridgeport environment. Beset by financial troubles and desperately trying to complete his unfinished masterpiece, "Belshazzar's Feast," he complained of the difficulty of painting in "this Sublime Porte" as being "like a bee trying to make honey in a coal-hole."

Through most of the first half of the 19th century, Cambridgeport was engaged in civic rivalry with the other two parishes of the town, Old Cambridge and East Cambridge, over matters of separatism versus unity. The two younger partners, East Cambridge and Cambridgeport, were especially anxious to make inroads on the monopoly of civic power and prestige held by Old Cambridge. After the courthouse was located in East Cambridge in 1816, the need for an instrument (or at least a symbol) of power was felt acutely in the Port. Another manifestation of this rivalry was the competition for commercial traffic routes between the proprietors of the Canal Bridge in East Cambridge and the proprietors of the West Boston Bridge in Cambridgeport.

In 1830, after a stormy battle, Old Cambridge was allowed to enclose and retain intact its Common, preserving its hold on the symbolic historic center of Cambridge. But the very struggle that awarded Old Cambridge this symbol of pre-eminence led indirectly to the solution of Cambridgeport's problem. In the course of the debates it became evident that a new town house would be needed. The old courthouse, used for town meetings from 1756 to 1831, was too small to hold the increasingly large crowds in attendance. A committee appointed in 1830, consisting of three prominent residents of each parish, deliberated on the touchy question of where to locate the new town house. The Cambridgeport contingent fought bitterly to secure the location in its territory and managed to enlist the aid of East Cambridge to form a coalition against the interests of Old Cambridge. The committee finally chose the northeast corner of the Cambridgeport Almshouse lot (the corner of Harvard and Norfolk Streets) as the site of the new town building. The lot was chosen as a convenient central location for the entire town and symbolized the shift of the center of population from Old Cambridge to the east. The columned Greek Revival town hall, designed by Asher Benjamin, was used for town meetings from March 5, 1832,



19. OMNIBUS IN FRONT OF CAMBRIDGE ATHENAEUM, MASSACHUSETTS AVE. AT PLEASANT ST., CA. 1852

20. HORSE RAILWAY CARS IN LAFAYETTE SQUARE, 1858.
AT LEFT: FIRST UNIVERSALIST CHURCH AFTER 1858 REMODELING.
CENTER: MASON SCHOOL OF 1835

until December 29, 1853, when it was leveled by fire. After the disaster, Cambridge, now a city, took over the Athenaeum building on the corner of Massachusetts Avenue and Pleasant Street as its City Hall (Figs. 19 and 233).

Inter-parish rivalry reached a climax in the movement for separation in 1842. Residents of Old Cambridge, annoyed by the removal of public buildings to the second and third parishes, petitioned the General Court to divide Cambridge into two distinct towns with a boundary line running north and south along Lee Street from Somerville to the Charles River. The court denied the petitioners, claiming that they showed insufficient reason for the separation. The strong opposition offered by East Cambridge and Cambridgeport was successful. Soon thereafter, on January 14, 1846, a town meeting voted to petition the state legislature for a city charter. On March 17, 1846, the legislature passed "an act to establish the City of Cambridge," subsequently approved three to one by a referendum of Cambridge voters.

Hopes engendered by the establishment of Cambridge as a city brought some relief from the economic despair that engulfed Cambridgeport at the time. Failure of the railroads to locate in the Port had occasioned a severe threat to Cambridge's economy, and already the city was experiencing a depression. Beginning in the 1830's the railroads had all bypassed eastern Cambridge. The Fitchburg and the Boston and Lowell Railroads in Somerville and the Boston and Worcester in Brookline had replaced the old turnpikes as major commercial routes between Boston and inland towns. One by one the great inns on Main Street closed; stores followed. The 1848 Directory laments, "the construction of numerous railroads running from Boston, all of which by some fatality seem to avoid Cambridge, have almost annihilated the extensive trade which was formerly carried on between the Port and country towns, even as far back as the borders of Vermont and New Hampshire." Cambridgeport's days as a trading village were ending, just as its hopes of being a shipping center had been dashed.

1850–1916: Industrialization

Industry came to the rescue, as Cambridgeport, like other towns around Boston, began to be industrialized in the middle decades of the 19th century. Rapid transportation growth in the 1850's and 1860's laid the groundwork. After years of agitation to remove tolls from the bridges to Boston, positive steps were taken in 1846, when Isaac Livermore, Charles Valentine, and William Reed formed the Hancock Free Bridge Corporation. They immediately purchased the Canal Bridge, the West Boston Bridge, and the Western Avenue Bridge. (The latter had been built in 1824 by the Proprietors of the West Boston Bridge and had been operated by them thereafter as a toll bridge.) The act of incorporation specified that the Hancock group would transfer the bridges to the city as soon as it had collected in tolls the equivalent of initial outlay. This goal was achieved in 1858, when, amid city-wide celebrations, the bridges were made "forever free." The Brookline Street (now Boston University) Bridge, built in 1850 by adjacent landowners, was not sold to the city as a free bridge until 1869.

Horse railway service (see Figs. 20 and 290) began in 1953 with the incorporation of the Cambridge Railroad Company, greatly facilitating transportation within the city as well as to and from Boston. In 1855 the Union Railway Company leased the Cambridge Company's franchise, purchasing it outright two years later. The Union Company began service in 1856 with a line from Harvard Square to the West Boston Bridge via Massachusetts Avenue and Main Street; later it added lines along Cambridge Street (1859), Broadway (1863), and Prospect and Pearl Streets (1870). In 1857 the Newton Railroad Company began a service on River Street, connecting with the Union Railway in Central Square. The multiplication of street railways had an important effect on Cambridgeport development, for the lines stimulated commercial and residential activity along the thoroughfares they followed. As a result, Cambridgeport did not fan out from a single center or even from one single line but rather stretched along a hatch-work of crisscross lines. Building then spread out from these linear beginnings.

Of all the transportation advances in 19th-century Cambridgeport, the coming of the steam railroad was the most significant. Although the city's inhabitants welcomed the railroad, they misconstrued its significance, applauding it (like the free bridges and the horse railway) for its commercial utility rather than for its industrial potential. Many years would pass before they realized that its true importance lay in its service to manufacturing.

The coming of the steam railroad dates back to 1848, when Isaac Livermore, Charles Davenport, and Newell Bent incorporated as the Union Railroad Company (no connection with the Union Railway Company, which operated street railways in Cambridge after 1855). The new corporation was authorized to build a railroad "with one or more tracks" from the Fitchburg line in Somerville "across the marshes on the westerly side of East Cambridge village to a point on Main Street a little below Washington Street, thence across the marshes to Charles River and over said river by a bridge" at a point to be determined by the commissioner, connecting with the Boston and Worcester Railroad in Brookline. After five years of inaction, the Union Railroad Company was obliged to sell its franchise to the recently incorporated Grand Junction Railroad and Depot Company, which began construction immediately. Service began in 1855 but lasted only part of a year; then the railroad bridge at the foot of Brookline Street was carried away by a storm. The Grand Junction, thoroughly in debt and mortgaged to the hilt, was unable to repair the bridge, and service came to an abrupt halt. The next eleven years were a jumble of indebtedness and confused ownership. After a long series of lawsuits, a legislative act of 1866 authorized the Boston and Worcester to take over the Grand Junction's franchise and properties.

Even though no trains ran between 1855 and 1866, the presence of a railroad lured industry into Cambridgeport. In a sense, the railroad's arrival was sufficient to catalyze an industrial reaction that had been waiting in the wings. Also of great significance was the location of the railroad bed. Skirting the settled areas of Cambridgeport by a wide margin (as much as a third of a mile), the tracks were laid on a high embankment that ran over marshes and mud flats for about 85% of its total length. With only a few culverts for drainage, the embankment served as a sea-wall or dam, protecting a corridor of relatively dry marsh land on the southeast border of the Port from tides. Once the solid, higher land between Main Street and Broad Canal was taken by industry, this protected corridor offered millions of square feet of inexpensive land adjacent to the railroad for industrial locations. Had the railroad located in already settled areas, high land values might well have discouraged industrial development. In any case, the physical patterns of the city's growth would have been different. As it was, the strips of industrial land along Portland Street and the present Albany Street effectively prevented residential expansion to the east and south. Much later, when the triangle of mud flats now occupied by M.I.T. was filled, this area was so separated from the rest of residential Cambridgeport by a ring of industry that residential construction was discouraged.

Following the building of the railroad, there occurred not only a quantitative growth but also a qualitative change in Cambridgeport industry. Most of the earlier industries had been small operations founded by long-time residents. Growing slowly, often unevenly, with the village, they employed a large percentage of craftsmen and skilled laborers. The new industry that came to Cambridge diverged from this pattern. Cheap and plentiful land, convenience to the railroad, to ship transport, and to Boston, and the availability of a large and inexpensive supply of immigrant labor made the Port a highly desirable industrial location. A number of firms moved into the area, full-blown, from the outside, supplementing the existing local firms.

The first district to develop industrially was the high, dry land along the railroad from Main Street to just north of Broad Canal. The construction of Lysander Kemp's soap factory in 1853, followed by the soap works of Dickinson and of Frazier and Whittemore, helped consolidate the Davis-Portland-Brewery Streets area as a soap-making center. Later, in 1900, it was this area in which Lever Brothers chose to locate its Cambridge plant. After buying out Curtis Davis in 1900 and J. P. Mellen in 1902, the Lever firm controlled a wide strip of land between Broadway and Harvard Street, from Portland Street to the railroad. The site is now part of Technology Square.

The Cambridgeport industrial pocket gradually spread east toward Kendall Square. In 1874 Mason and Hamlin established a large organ factory just west of the railroad tracks, with a spur running to its buildings. In 1870 Henry Thayer Company, chemical manufacturers, an indigenous industry begun in 1847 as a drug store, moved to a large site south of Broadway just east of the railroad. Another important industry east of the tracks was Bird's Iron Foundry, which moved to the corner of Sixth and Broadway in 1866. North of Broadway, the entire strip of land along the canal was taken for industrial use. In 1864 Lyman Kingsley founded the Boston Rolling Mill, an immense operation between Binney and Hampshire Streets at the western end of the Broad Canal. Coal was brought in on the canal, which also served as a source of industrial water.

Industrial development of the property south of Broadway between the railroad and Kendall Square was impeded by the presence of South Canal and South Dock. Part of South Dock and of the Cross Canal that connected with Broad Canal were filled in in 1850. Settlement of the Bent estate in 1863 released parts

of the South Canal bed near the railroad tracks. When the grade was increased to accommodate Sixth Street in 1873, South Dock was completely filled in, and South Canal soon disappeared. Thus the canals proved to be not only commercial failures but actual obstructions to later industrial growth.

North of the old Main Street causeway, new wharves were extended over 850 feet into the Charles River. These wharves were used not only for commercial purposes (lumber and coal) but also for manufacturing. The eastern end of the causeway district was occupied by the monument works of the Cambridge Preserving Company and by the Shawmut Iron Works. South of the causeway, the Kendall and Roberts Boiler factory and the Rawson and Hittinger Iron Foundry located their wharves. Formerly called Dock Square, the junction of Broadway and Main Street became known as Kendall Square, named for Deacon Edward Kendall, founder of the boiler factory just mentioned. The Kendall Square area assumed an increasingly industrial character as its former commercial prominence waned.

The printing industry was a notable exception to the new industrial pattern. Requiring large floor space rather than convenient rail transportation, the early printing establishments did not locate along the railroad. In 1851 Charles Little and James Brown established a bindery east of Blackstone Street on part of their already extensive landholdings. The following year they leased a large parcel of land west of Blackstone Street, along the river, to Henry O. Houghton and Company, Printers. Houghton moved his presses from Remington Street to a small brick building (originally the Cambridge Almshouse) at the new location, which he called the Riverside Press (Fig. 294). Only 50 persons were employed in 1852, but the firm grew rapidly. Several new buildings were erected, dwarfing the original structure (see Fig. 296). By 1890 employment at the Press had increased to 600.

Other indigenous industries began in southern Cambridgeport during the period of transition. In 1860 Alvan Clark built a small telescope factory on the corner of Henry and Brookline Streets, adjacent to his residence. Due largely to Clark's technical brilliance, his telescope factory grew to become the most prominent in New England. On a large tract of land west of Pleasant Street, the Dover Stamping Company began operations. Business thrived, and both plant and landholdings were considerably expanded.

Financial and commercial progress kept pace with the growth of industry and population. Before 1850 only one bank served Cambridgeport – the Cambridge Bank, founded in 1826. Under the leadership of such prominent Cambridgeport residents as James Chaplin, Levi Farwell, Samuel Fay, Thomas Whittemore, and Benjamin Tilton, the bank grew with the village; in 1865 it was reorganized as the Cambridgeport National Bank. Two other banks were organized in 1853 – the Cambridge City Bank (later the National City Bank of Cambridge) and the Cambridgeport Savings Bank. In 1861 the Harvard Bank (later the First National Bank of Cambridge) opened an office. All these Cambridgeport banks were located on Massachusetts Avenue.

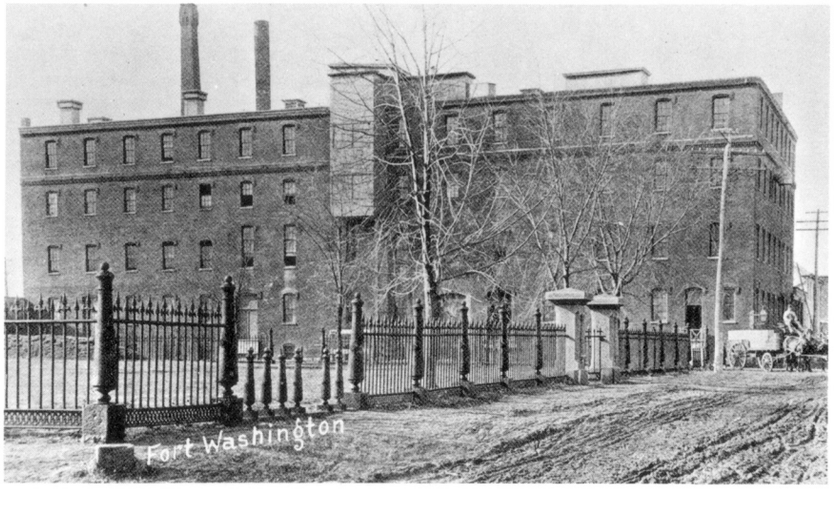
As the Port's business districts thrived, river traffic waned. The railroad was clearly a more efficient means of freight carriage than the Charles River with its bridges and tides. Symbolic of this shift in orientation was the decision in 1885 of George Gale, largest lumber dealer in the Port, to move his business from the river to a location next to the railroad tracks between Albany and Portland Streets.

As the industrial development of Cambridgeport continued, an increasingly large percentage of the new factories were engaged in heavy industry. Several firms, highly mechanized and involving very large operations, manufactured machinery or other metal products. A broad industrial area from Bristol Street east emerged.

Barbour, Stockwell and Company Iron Foundry, consolidated from three smaller indigenous firms, located in 1890 on the block bounded by Hampshire, Clark, Market, and Davis Streets, formerly Alexander Dickinson's nursery. Boston Woven Hose and Rubber Campany, located on Brewery Street in 1880, moved in 1886 to the site of the old Boston Rolling Mill at Hampshire and Portland Streets (Fig. 300).

Other companies began to fill the marshes between the higher land and the railroad embankment. Ivers and Pond built two piano factories, one near Main Street, the other near Osborn. In 1878 Edmund Reardon built a large oleomargarine, soap, and tallow factory adjacent to Fort Washington (Fig. 21). Norcross Brothers, an important construction firm in the greater Boston area, located their yards near Brookline Street. The New York Biscuit Company, formerly the Kennedy Steam Bakery, had an extensive plant between Green and Franklin Streets (Fig.22); nearby, the Simplex Electrical Company expanded rapidly to cover three blocks along Sidney Street (Figs. 307-309). By 1903 Stillwell's Stoneworks and Brigham's Creamery had moved in. Soon they were joined by firms such as Heinz, National Biscuit Company, Lamb and Ritchie (Fig. 311), Boston Structural Steel, and the Penn Metal Company. By 1916 the

21. REARDON SOAP FACTORY ADJOINING FORT WASHINGTON. 1896 PHOTO



area was nearly saturated with heavy industry, which stretched in a giant arc from Cambridge Street on the north to the river at Brookline Street on the south, with the railroad forming an eastern boundary. Beyond the tracks was an additional industrial zone around Kendall Square. The Riverside area also experienced industrial expansion. The Dover Stamping Works and the Riverside Press were augmented by Holmes and Rugg's Coal Yard, Dinsmore's Planing Mill, the Cambridge Railway Stables, and the Cambridge Electric Light Works. Fig. 23, a map of Cambridgeport land use in 1916, shows the locations of many of the major industries.

Conversion of Cambridgeport from a commercial center to a bustling industrial suburb was accompanied by momentous changes in population. After 1855 the population of Cambridgeport increased by roughly 10,000 every ten years; the average rate of population growth was 3.4% per year, with only slight variations from decade to decade.

Conversion to an industrial basis is also reflected in occupational changes. Although city directories tend to obscure distinctions between skilled and unskilled labor, directory lists show that the proportion of semi-skilled manufacturing workers and machinist-operatives increased in Cambridgeport over the years. Throughout the later 19th century, the district's working population was predominately middle- and lower-class. A significant aspect of occupational change was the steady decline in the proportion of Cambridgeport residents working in Boston. In 1848, 26% held jobs in Boston; in 1870, 19%; and in 1890, 11%. These figures reflect a transition from dependence on Boston toward occupational self-sufficiency. In fact, the number of workers commuting into Cambridgeport from outside (including other parts of Cambridge) began to increase. According to one estimate, 15 to 25% of those working in the Port in 1905 lived outside its borders.

22. NEW YORK BISCUIT CO. FACTORY, GREEN ST. 1896 VIEW

Immigration brought with it major changes in the ethnic composition of the population. The homogeneous Yankee population of the 1840's gave way steadily to a more cosmopolitan pattern. A study made by Albert J. Kennedy reveals only 25 persons "with foreign sounding names" in the 1848 directory, out of 1065 listed householders and adult boarders – in other words, 2.3% of the total. By 1855 there were 2248 foreign-born, or 21% – almost a tenfold increase. The figure for 1865 was 24%, for 1875, 26%. The Irish came first and in the greatest numbers. Irish-born inhabitants in 1855 numbered 1410; in 1865, 2119; in 1875, 3700. Canadian and new British immigrants soon followed, growing in number from 587 in 1855 to roughly 2000 in 1875. Germans came early, in small but consistent numbers. Around 1870 Swedish immigrants entered Cambridgeport, increasing rapidly in the 1890's, and Portuguese settlement came after 1895 as an overflow from East Cambridge. Finally, after 1900, Eastern Europeans moved into the area in steadily increasing numbers. By 1905 a full 31% of the Port's population was of recent foreign origin. The source of these figures is Albert J. Kennedy's report on Cambridgeport in *The Zone of Emergence,* written before World War I and published by the Joint Center for Urban Studies in 1962.

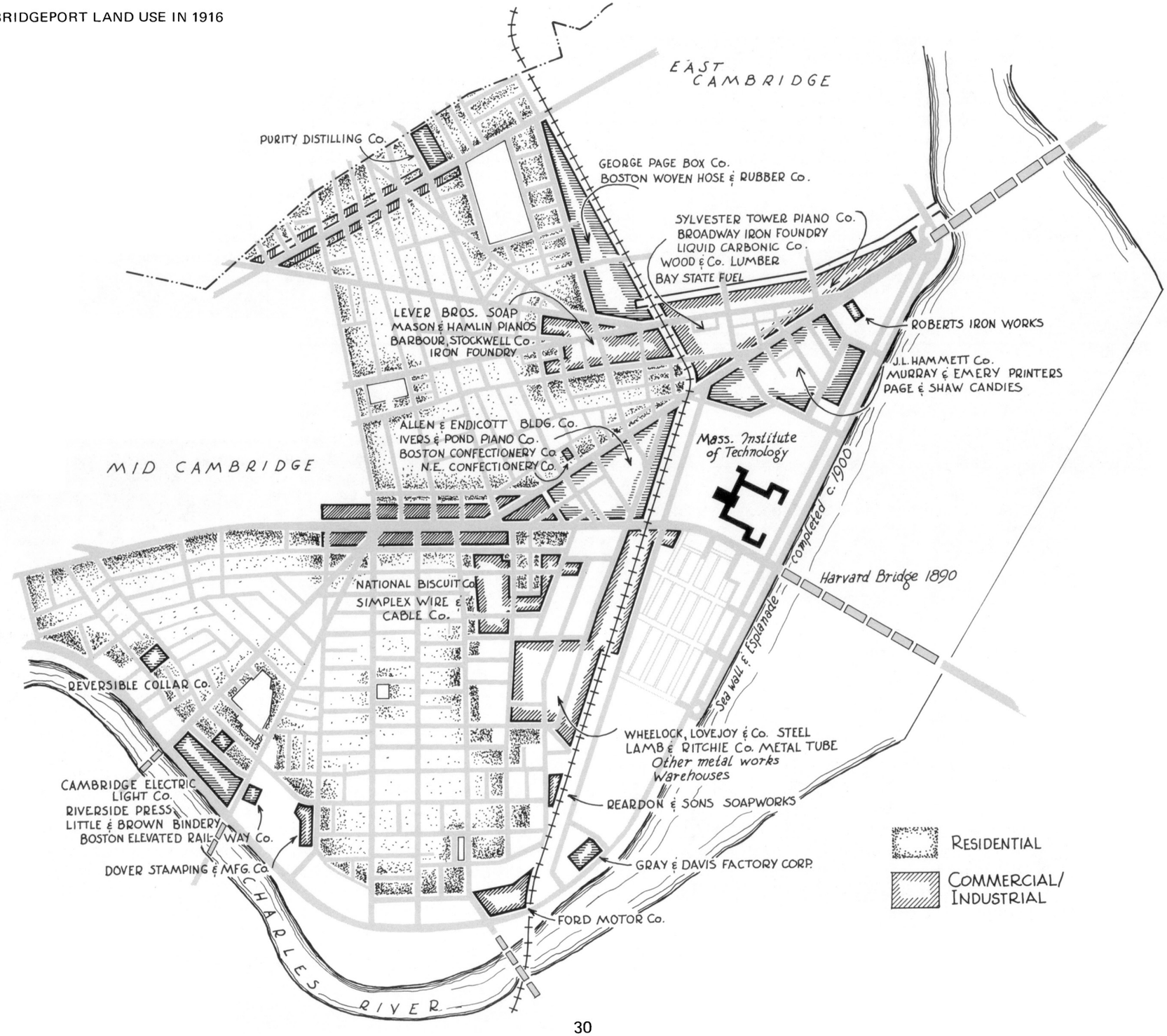
Increases in population naturally exerted pressures on the supply of housing, but Cambridgeport was equal to the task. Even after large numbers of single and double houses had been erected to accommodate the first waves of immigrants, there was still sufficient land to support an enormous speculative surge in the 1880's and 1890's. Indeed, as late as 1915 open land was available on the low-lying southern fringes of the district, near the river, though in central neighborhoods, where the land was well drained, nearly all building sites were filled.

Cambridgeport's accidental pattern of development differed from the more systematic growth of East Cambridge. Scarcity of land in East Cambridge necessitated intensive use from the start. After the high land was laid out in a regular grid and built up, expansion was possible only at the expense of the surrounding marshes. By 1880 East Cambridge had achieved most of its physical growth. Internal expansion was discouraged by the compactness of existing neighborhoods; external expansion, by the natural barriers of river and marsh.

In Cambridgeport, blessed with great expanses of dry land, only the centrally located neighborhoods were built up intensively at an early stage. The concept of centrality that governed patterns of residential concentration meant proximity to Main Street and Massachusetts Avenue, the major east-west commercial route, or, to a lesser extent, proximity to Broadway or Hampshire Street. Thus the neighborhood most similar in appearance to East Cambridge was the Columbia-Harvard-Main Street triangle. Nevertheless, those who sought a more rural setting or cheaper land could always find it, especially south of Main Street. As early as the second quarter of the 19th century there were scatterings of houses over a wide area, from north of Hampshire Street south to Chestnut Street.

During the third quarter of the 19th century, the meaning of centrality changed considerably. As transportation became more plentiful and more rapid, centrality came to mean proximity to the major street railway routes. Thus a

23. CAMBRIDGEPORT LAND USE IN 1916



whole group of streets became "central" locations. Furthermore, as Cambridgeport became more and more occupationally self-sufficient, centrality depended less on the West Boston Bridge and more on convenience to the Massachusetts Avenue commercial district or to the industrial pockets near the railroad and lower River Street. With the added attraction of plentiful land, southern Cambridgeport became particularly desirable; but even north of Main Street there was sufficient room to accommodate the successive waves of building activity of the 1850's, 1860's, and 1870's. Cambridgeport's history of plentiful land precluded a systematic, unidirectional pattern of growth.

Lack of building space in Cambridgeport was foreseen well before it became a reality. The more farsighted speculators and builders recognized that single houses and double houses, even row houses, did not offer a long-run solution to the housing needs of the rapidly increasing working class. With rents and land prices rising and new waves of immigrants arriving, a type of housing that allowed more intensive land use was sought. The solution was the horizontally-divided "decker," which began making its appearance in the 1880's. As neighborhoods in the northern Port or just below Main Street filled up, older houses were moved to the backs of lots to make room for buildings of the new type. In the southern part of the district, where land was still available, whole blocks of three-deckers were put up.

In more settled sections, existing buildings were made to accommodate more families by subdividing and by adding ells; dead-end ways and courts were laid out to convert one or two large house lots into a small development. Though information on the number of families per dwelling is lacking, the ratio must surely have increased from the low figure of 1.2 in 1856. City directories do indicate that the proportion of boarders and roomers increased. In 1849 only 11% of the adult working population and family heads boarded, a ratio of one boarder to every eight householders. By 1890 a full 26% boarded, nearly a ratio of one boarder to every three householders. The population of Cambridgeport was becoming thoroughly urbanized, and the district's streets, after successive surges of building, were losing their earlier quiet uniformity to what was sometimes a pleasant architectural variety but too often was an ugly confusion of scales and styles.

The 19th century witnessed the greatest period of topographical expansion, as well as population growth, in Cambridgeport history. Within 120 years the entire work of filling and raising the land was accomplished – by far the major part in the 50 years 1860-1910.

As of 1850 the principal expanses of marsh were to be found in southern Cambridgeport. After the coming of the railroad, the territory east of Brookline Street became a desirable industrial location. Besides, the railroad embankment now protected the area from tides and acted as a shield from the unsightly mud flats beyond. A few industries moved to the drier locations of this region as early as 1870; in the late 1870's and the 1880's, the city filled other parts of this marshy corridor and expelled the squatters who had been camping there for many years. As early as 1879 the city projected a street pattern that was an extension, from Brookline Street to Albany Street, of the existing pattern of cross streets. During the 1880's and 1890's a flurry of activity on the part of proprietors and new industrial tenants finished the job of reclamation. In the first decade of the 20th century still other industries moved into the area to transform the old Sidney Street marshlands into a saturated industrial pocket.

About the same time. a large tract of marshy lowland near Putnam and Western Avenues was being reclaimed for residential use. These marshes were somewhat higher than those adjacent to the mud flats of the Basin; as such they were not as great an obstacle to residential expansion. After Putnam Avenue, Western Avenue, River Street, and the three "parallel" streets (Green, Franklin, and Kinnaird) had been put through, the filling of these western marshes came primarily through a series of encroachments. Drainage was provided by two small brooks and a pond at the site of the present Hoyt Field. After the speculative boom swallowed up the marshes in the 1880's and 1890's, the pond was taken by the city for a playground and was filled in.

In the north, the marshes along Portland Street were reclaimed primarily through individual efforts. The work of reclaiming the northern marshes along the railroad, begun in the 1860's by the Boston Rolling Mill, was completed in the 1890's, when the triangle of marsh north of Binney Street between Portland Street and the railroad was taken for industrial use. Except for Donnelly Field, graded and filled by the city in 1894, the rest of the Hampshire Triangle was developed by private interests, mostly speculators.

The area east of the railroad embankment, toward the river, began to attract attention in the 1870's. The most important cause for this was the example of Boston's Back Bay, where idle tidal flats were being replaced with attractive residential boulevards and a profit was being made in the process. The extension of West Chester Park (now Massachusetts Avenue) to the edge of the river seemed to beckon Cambridge to imitate Boston's example and extend the new highway across the river. The marshes on the Cambridge side were, by contrast to the filled Back Bay lands, a desolation that offended both sight and smell. For many years paupers had camped on the salt marshes, creating an unsightly and unhealthy colony that ultimately could not be ignored. In the interests of health as well as beauty, the city began to fill some of the marshes along Brookline Street, but lack of funds discouraged any extensive undertaking. Private capital came to the city's rescue in 1881 with the incorporation of the Charles River Embankment Company.

The leader and first projector of the embankment plan was Charles Davenport, whose car factory (Fig. 289) had looked out over the mud flats. As early as 1840, Davenport began systematically to acquire title to the flats. In those days, owners of the land abutting the river or marshes held title to the mud flats to the lower water line of the river (the line of low tide). Covered by tidal waters much of the time, this land had very little value. By 1880 Davenport had acquired a large amount of such land in the triangle formed by Main Street, the railroad, and the low-tide line. In the summer of 1880 he and several owners of adjacent lands agreed to launch the embankment project. The act of incorporation empowered the Charles River Embankment Company to construct a sea wall, fill the lands and develop them for residential purposes, and lay an esplanade 200 feet wide along the river. In 1883 various members of the corporation – Davenport, John Goldthwait, the Jane D. Oakes Trustees, and W. E. Coffin – transferred their lands to the corporation, and the project was commenced.

24. CHARLES RIVER BASIN PROPOSAL BY CHARLES DAVENPORT, 1874. BOSTON IN FOREGROUND, CAMBRIDGE ON FAR SIDE OF BASIN

It is important to understand the vision beheld by Davenport and his associates, for although the project was a financial failure at the time, it anticipated the city's present handsome riverfront. It was another in the series of unrealized dreams that have characterized Cambridgeport history, beginning with another Davenport, Rufus, and his canals. But unlike the canals, the fruits of this failure never burdened Cambridgeport or obstructed its growth; in fact they opened up possibilities of growth never foreseen by the founders of the project. These men envisioned a beautiful, spacious, wealthy residential district on the embanked land. Basing their expectations on the example of Boston, they anticipated another Beacon Street-Commonwealth Avenue complex, with fine residences and tree-lined parks and promenades. Davenport even went so far as to foresee the tying together of Boston and Cambridge by means of a beautiful Charles River Basin, lined on both sides with parks and luxurious residences (Fig. 24). This basin would have rivaled Central Park in New York or the famous Elser Basin in Hamburg.

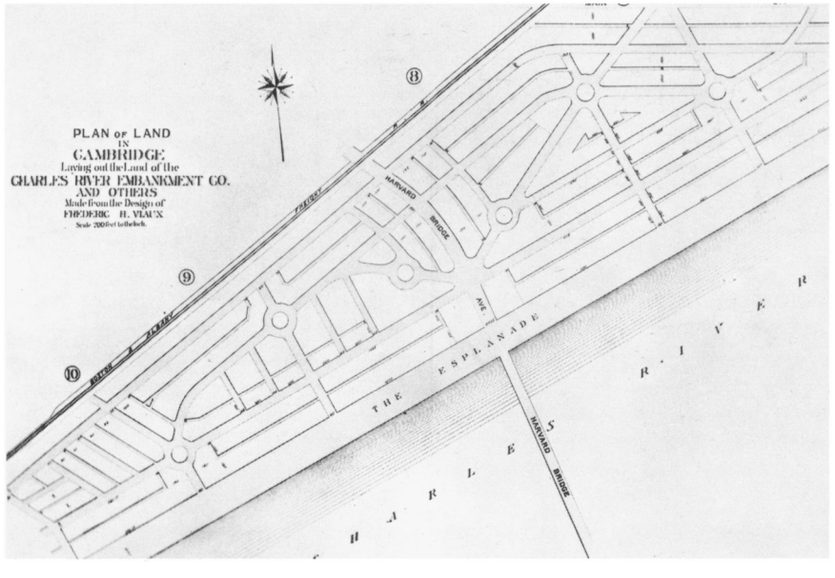
In 1884 and 1885 Davenport wrote several advertising pamphlets to arouse interest in the embankment project. He commissioned Frederick Viaux to draw up a design for the parks and streets in the area. Viaux's 1889 design was a highly imaginative one, with wide boulevards connecting several circles or rotaries. The first of three such layouts, the design was even published in the 1894 Cambridge atlas (Fig. 25). A specific set of building restrictions, modeled on those of the Back Bay, was drawn up. In the central part of the new area, no house was to cost less than $5000, and along the river, not less than $7000. All houses had to be built of brick, stone, or iron. No building fronting on the esplanade was to be placed within 20 feet of it; no buildings could be used for commercial or industrial purposes; and all were to be between three and eight stories high. Apartment houses were permitted as well as private residences, but certain minimum costs per suite had to be met.

Before much progress had been made on the actual dredging of the river and filling of land, the city stepped in. Realizing the importance of the embankment for health, wealth, and beauty, the city decided to help the Embankment Company and at the same time to assure itself of an esplanade parkway and a new bridge to Boston. In 1882 the state legislature authorized Boston and Cambridge to build a bridge from some point on Beacon Street across the Charles, a bridge that the cities subsequently agreed to locate in line with West Chester Park. Two years later Cambridge and the Charles River Embankment Company made a reciprocal agreement in which the city promised to delay any tax increase during the period of construction in return for a guarantee that the corporation would embank and convey to the city an esplanade 200 feet wide along the river and a strip of land for an approach to the new bridge (now the section of Massachusetts Avenue between Lafayette Square and the river). Objections raised by taxpayers and by the Boston City Council necessitated a legislative ruling in 1887 enforcing construction of the bridge, which was finally opened in 1890 and named the Harvard Bridge (Fig. 26).

In contrast to early Cambridge landfills, which had been made with gravel taken from higher ground, the banks of the Charles were filled with mud dredged from the river. Early developers had lacked the heavy machines needed for such work and also had had the mistaken idea that river mud would not be healthful. Without dredged fill, however, the improvement of the Cambridge riverfront would not have been possible, because by this time most of the city had been covered with buildings.

The first step in the development was a section of granite sea wall erected in 1883. Progress was steady until the depression of 1893, when the Embankment

25. PLAN OF EMBANKMENT LANDS PUBLISHED IN 1894 CAMBRIDGE ATLAS

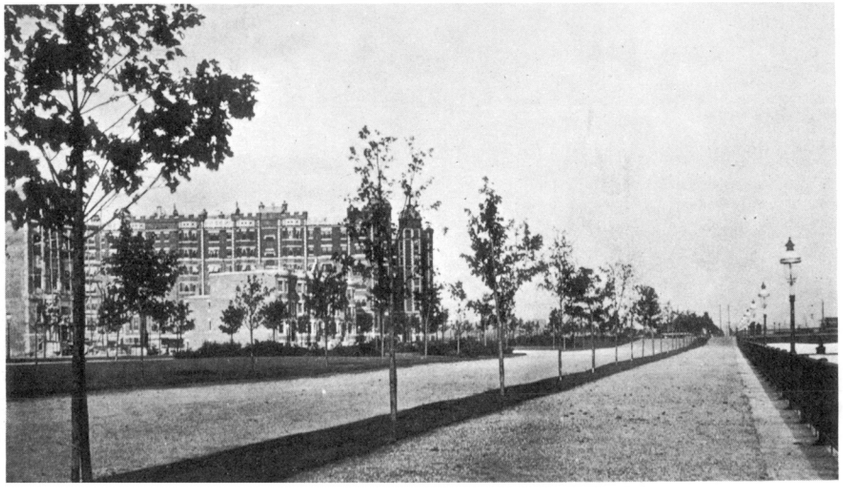


Company, born of an inflationary surge, collapsed. By the late 1890's wide expanses of water-covered land still had to be filled. As of 1903 (see atlas plate, Fig. 328), only three buildings had been erected – one the immense Riverbank Court apartment hotel (Figs. 27 and 54). Meanwhile the city began to develop the riverfront west of the railroad bridge – the former Captain's Island, where the state powder magazine had been built in 1818 – to make Magazine Beach a playground and park. The name indicates that the Charles in its tidal days was a popular bathing area (see Fig. 247).

Work on the embankment was also impeded by a 20-year struggle over a plan to dam the Charles River to create a freshwater basin. Understandably the city was loath to build an expensive sea wall from Watertown to Cambridgeport solely to control tides that might soon be eliminated by a dam downstream. Completed at last in 1910, the Charles River Dam established the basin's water level at Grade Nine (nine feet above mean low tide). This clarified the need for a sea wall, and the work of embankment was swiftly completed.

In 1912 Massachusetts Institute of Technology decided to locate its campus on the newly filled lands on the north bank of the Charles River Basin, a step that had little immediate effect but that ultimately helped bring about a dynamic period of rebirth and revival in Cambridgeport. The embankment scheme of Charles Davenport was a failure, a dream unrealized; the north bank of the Basin never became a gilt-edged residential suburb. But the coming of M.I.T.introduced a change in direction that led eventually to a new kind of urban-suburban consolidation, the scientific unification of Cambridge and the western suburbs from Boston to Route 128. Cambridgeport, with its scientific and technical manpower, was a focus in this development.

26. HARVARD BRIDGE AND UNFILLED EMBANKMENT LAND, CA. 1890. VIEW TOWARD BOSTON FROM RAILROAD TRACKS



27. ESPLANADE IN FRONT OF RIVERBANK COURT, CA. 1901

1916–1970: 20th-Century Change

During the past half century, as before, patterns of physical and economic growth have depended critically on transportation. For Cambridgeport the 20th century has been the era of the subway, the automobile, and the truck. These three transportation innovations have helped change the face of the city. The fourth important mode of transportation, the trolley and later the bus, is really a continuation of the old horse railway and thus has not in recent decades had a revolutionary impact.

The subway from Park Street, Boston, to Harvard Square opened in 1912. Its route – across the Longfellow Bridge and under Main Street and Massachusetts Avenue – followed the old horsecar and trolley line. The subway cut commuting time from Harvard Square to Boston by two-thirds, making the business centers of Boston so convenient to the suburbs that Central Square lost much of its importance as a commercial district.

The subway bridge occupies the site of the West Boston Bridge, which in 1793 opened up Cambridgeport for development. A second bridge at the same location served from 1854 until the turn of the century, when it was replaced by the present imposing structure of granite-faced concrete and steel (Fig. 28). Designed by architect Edmund M. Wheelwright and engineer William Jackson, the Longfellow Bridge (originally known as the Cambridge Bridge) was built during the years 1900-1906. Although it preceded the subway, it was designed with a fenced-off center section for rapid transit as well as with trolley tracks in the roadways on either side.

28. LONGFELLOW BRIDGE, 1900-1906. EDMUND M. WHEELWRIGHT, ARCHITECT. WILLIAM JACKSON, CHIEF ENGINEER

The automobile has produced major changes in Cambridgeport, as in other communities that grew to maturity in the era of pedestrian and light horse-drawn traffic. By increasing feasible commuting distance, the automobile has caused the western suburbs to expand, while Cambridgeport population has declined. Furthermore, the automobile has hastened the reduction of Central Square to a purely local business district. Congested streets and small-scale stores have caused motorists to turn elsewhere for their needs, especially to outlying shopping centers. Automobile-oriented businesses on Memorial Drive (such as the Stop & Shop market, Fig. 276) exemplify this change.

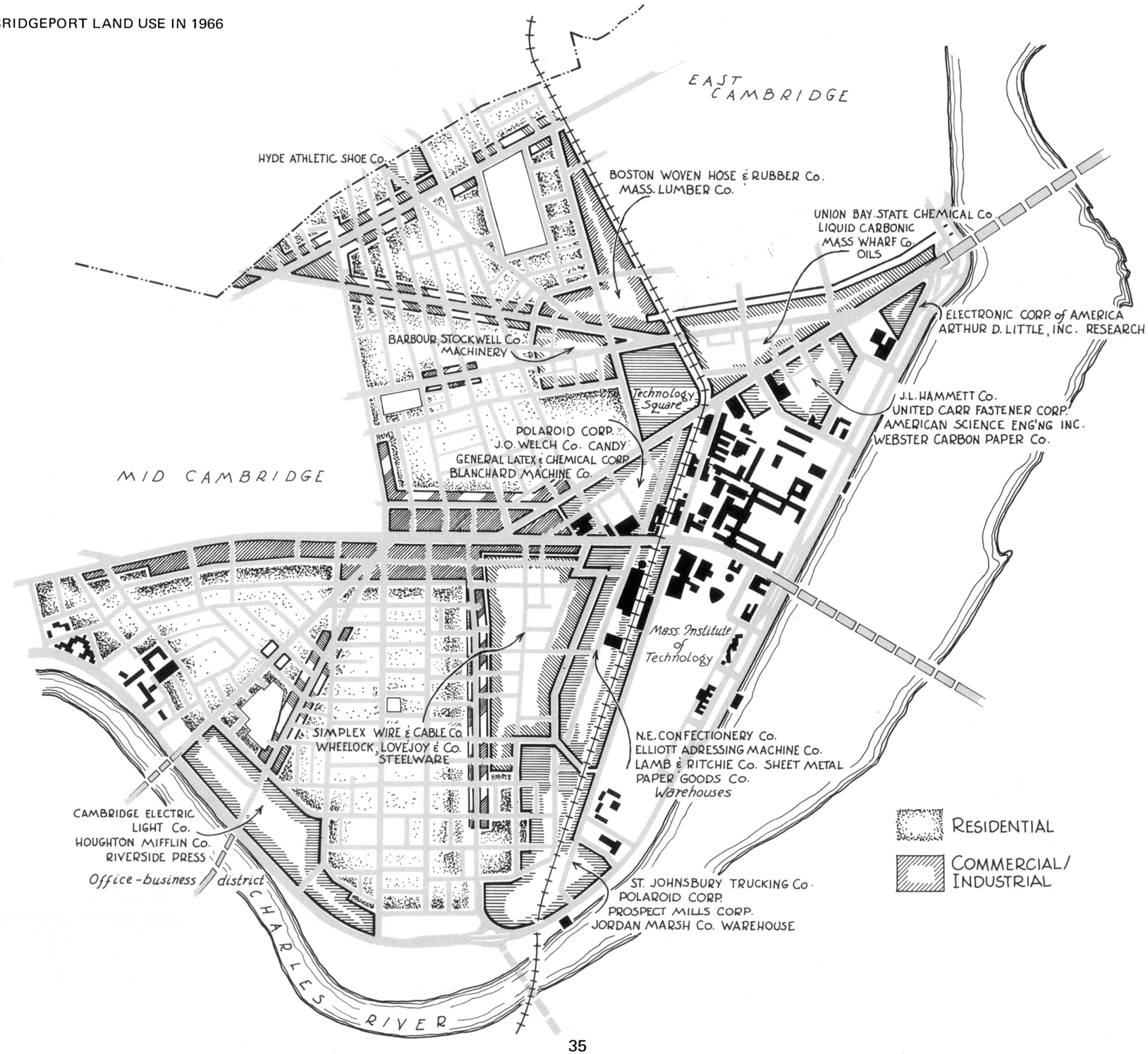
The truck, on the other hand, has been a boon to Cambridgeport. Trucks are now by far the district's most important means of freight carriage, having virtually replaced the railroad. The old turnpike roads of the Port, after a long period of commercial inactivity, once again hum with trade and transport. In the era of truck and subway, Kendall Square quickly became the Port's principal industrial area, owing to its convenience to Boston.

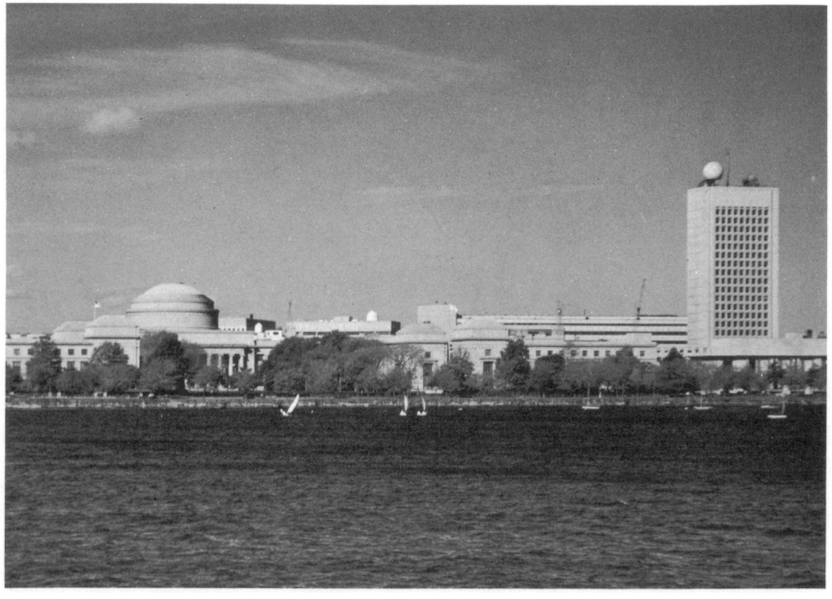
During the 1920's Cambridgeport's unobstructed growth came to a halt; the last pieces of open land were occupied. Available industrial space was taken in a wartime and postwar spurt of activity, while M.I.T. occupied most of the riverfront. After the last waves of immigrants arrived around 1920, the population leveled off. The rapid growth of industrial output slowed down at the same time, and manufacturing employment fell after 1929. By traditional standards of scale and intensity of land use, Cambridgeport was saturated. But unlike East Cambridge, growth did not cease, for a new standard of land use emerged through wholesale demolition of old built-up neighborhoods. Some of these changes are apparent on the map of Cambridgeport land use in 1966 (Fig. 29).

The public housing projects of the 1930's and 1940's are an indication of changing conceptions of land use as well as an illustration of the painful process of post-saturation growth. The two earliest of these projects were New Towne Court (1937) and Washington Elms (1941), together occupying the entire area from Main to Harvard Streets and from Portland to Windsor Streets (Fig. 57). To provide this land, nearly 200 buildings were demolished in the city's worst slum area; eight streets were obliterated and fourteen small blocks combined into two large ones. This was the first local example of the block-clearance method, which has become an essential stage in the process of growth in present-day Cambridgeport. However dull, even sterile, these rectangular brick buildings may be, they at least represent an attempt to create a new type of useful urban space.

Several other public housing projects were completed in the 1950's, including Roosevelt Towers on Cambridge Street (Fig. 58), Putnam Gardens on Putnam Avenue, and Woodrow Wilson Court on Magazine Street (Fig. 389). Of these, the last is the most successful at opening up and creating a pleasant central space between the buildings. This success owes partly to the fact that Wilson Court is the smallest of the developments; its land use and building size are both consistently governed by a domestic, human scale.

29. CAMBRIDGEPORT LAND USE IN 1966





30. M. I. T. RIVERFRONT. AT LEFT: DOME OF MAIN BUILDING (1913). AT RIGHT: EARTH SCIENCES TOWER (1964)

Massachusetts Insitute of Technology has been instrumental in shaping the face of present-day Cambridgeport, especially along the riverfront and around Kendall Square. The first M.I.T. building to be erected was the immense, U-shaped Neoclassical structure at Memorial Drive and Massachusetts Avenue, still the center of the campus (Fig. 330). Subsequent buildings were grouped around this center on parallel axes, creating a rigid sense of order. The total impact is that of a geometric unit, a large area planned comprehensively.

The attraction of research-based industries to Cambridgeport has been one of M.I.T.'s major contributions to its surroundings. Without the institute and its phenomenal expansion in the postwar scientific age, the Port might have stopped growing in the late 1920's. But the influx of electronics, engineering, and research and development firms, lured by the brainpower at M.I.T. and by profitable government defense contracts, has produced a dynamic period of revival in postwar Cambridgeport. The choice of a Kendall Square site for the NASA Electronics Research Center was a keystone in this revival. From Portland and Albany Streets east, Cambridgeport is undergoing a rapid facelifting. (See Figs. 278-280.)

Not surprisingly, the principal tendency in Cambridgeport buildings of late has been an emphasis on height. Even the M.I.T. riverfront has changed, as seen in Fig. 30, which shows the Earth Sciences Building towering over earlier institute structures. The tendency toward height is more than just a further increase in scale; it also involves a dramatic revision of building proportions. Large buildings of the first third of the century, such as the Jordan Marsh warehouse (Fig. 313) or the NECCO factory (Fig. 316), give a feeling of extraordinary massiveness; they tend to overpower, almost belittling their domestic-scale 19th-century neighbors. But the impact of the new skyscrapers is more often one of slender grace than of sheer bulk or weight.

Technology Square and Peabody Terrace, both begun in the early 1960's, illustrate the changing appearance of Cambridgeport. Not so densely settled as downtown urban centers, Cambridgeport can still afford the luxury of open space. Several blocks of crowded two- or three-story buildings can be replaced by a few tall structures, leaving ample space (generally used for parking) around them. The entire block from Main Street to Broadway and from Portland Street to the railroad was cleared to make way for Technology Square (Fig. 278), which presently consists of four isolated structures separated by an open plaza. Peabody Terrace, the Harvard graduate student housing complex at 900 Memorial Drive, is a more successful total unit (Fig. 61). It consists of three slender 22-story towers surrounded by lower apartment buildings and a parking garage. The three towers and the related low buildings create and clearly define the open spaces, which are relatively small, comprehensible, and thoroughly human (Fig. 62).

An important aspect of the change in scale brought by the 20th century is the changing perspective in which Cambridgeport must be viewed. Transportation, inter-city cooperation, academic ties, industrial, and commercial connections have all served to unify the Greater Boston area. The industrial, commercial, and residential areas of Cambridgeport are now no longer faces of the same coin, different aspects of the same self-sufficient community. Industrial Kendall Square has more in common with industrial pockets in Boston and along Route 128 than it does with residential Cambridgeport. The residential sections, likewise, share more of a kinship with similar semi-urban districts in Somerville and Brighton than with M.I.T. or Kendall Square. If Cambridgeport is to be comprehended as a whole, it must be as part of the larger urban-suburban, industrial-residential community that surrounds it. A study of Cambridgeport industry now involves a long catalogue of internationally known names: Nabisco, NECCO, Polaroid, and the like. The scientific and educational institutions of Cambridgeport must include, by association, Lincoln Laboratory, Hanscom Field, and Harvard, as well as M.I.T. The working population by day – scientists from Lexington, professors from Belmont, workers from Brighton, consultants from Boston – is quite different from the residential population by night.

The most recent and controversial symptom of change is the proposed Inner Belt, an eight-lane commuter highway that would cut a broad swath through Cambridgeport from the Charles River to Somerville, probably along Brookline and Elm Streets. Dwarfing the tree-lined streets and store-lined avenues it passes, this new superhighway, if built, would have the giant scale of the community it was intended to serve, but it would act as a wall separating neighborhoods on one side from those on the other. Besides disrupting historical patterns of association, it would force many hundreds of families from their homes. There is a limit to how far people can be pushed, even by forces that seem beyond their control – thus the strong fight that Cambridge is mounting, officially and unofficially, against the Belt. The outcome of this fight will have a significant effect on the future history of Cambridgeport.

PART TWO: RESIDENTIAL ARCHITECTURE

Cambridgeport has such a great number and variety of buildings that discussion of its architectural history is best divided into residential and non-residential classifications, then into further subdivisions by building type, style, or period. Although much of the discussion concerns matters strictly architectural, the relation of Cambridgeport architecture to the history of the area should always be kept in mind. Many facts about the buildings are explained by non-architectural trends or events.

The fact that Cambridgeport had few 18th-century buildings – none of which survive – is explained by the fact that the area did not open up until the building of the West Boston Bridge in 1793. Declaration of Cambridgeport as a port in 1805 caused a flurry of building activity, brought to a halt by the Embargo of 1807-1809 and the War of 1812; these events explain an almost complete lack of Cambridgeport architecture from the decade 1810-1819. Cambridgeport's subsequent role as a trade route and modest suburb brought the construction of scores of single-family houses on quiet streets near the main commercial arteries; the coming of industry later in the 19th century brought not only industrial architecture but also an increased demand for housing, much of it multi-family workers' housing. Finally, the almost complete building-up of Cambridgeport's vacant land by the time of World War I meant that more recent projects (except for those on filled land along the Charles River) have had to involve demolition of earlier structures.

The history of Cambridgeport, therefore, tells us that the area's architecture is largely of the 19th century; that it involves modest vernacular buildings rather than trend-setting ones; but that in recent years the resurgence of building activity in the form of large-scale educational, technological, and residential complexes has brought some significant modern architecture to the area.

By far the largest number of Cambridgeport buildings are residential in function. Within this classification falls a great variety of building types and styles, from Federal-style single-family houses of the early 19th century to high-rise apartment buildings of the 1960's. The following discussion of Cambridgeport residential architecture is divided into two parts – the first dealing with types of residential buildings, the second with 19th-century styles. Each section is arranged in roughly chronological order.

Types of Residential Buildings

Basic to an understanding of Cambridgeport residential building types is a knowledge of the pattern of land division and ownership. Like most 19th-century American cities, and like most of the rest of Cambridge, nearly all of Cambridgeport was laid out with rectangular lots, deeper than they were wide, fronting on straight streets. The fact that there was no master plan for Cambridgeport, as there was for mid-Manhattan in New York City (planned 1811) or for the Back Bay area in Boston (planned 1856), only reinforces the universality of this pattern of land division, utilized by so many different land speculators over so long a period of time.

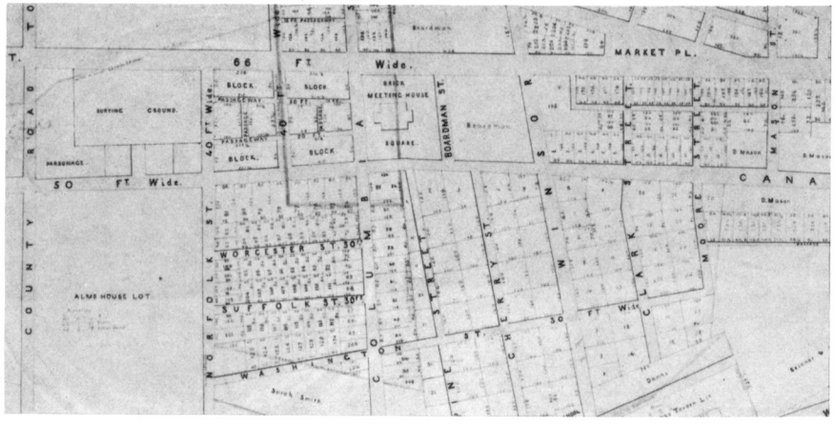
Figure 31 reproduces a portion of Peter Tufts' 1824 plan of Cambridgeport, showing a typical lot subdivision pattern. Rectangular lots such as these, sold off individually, were intended to be built up with separate houses, one per lot. Figure 32, an 1877 view of approximately the same area, shows the way individual houses were built on the various lots.

There were three basic house types during the first two-thirds of the 19th century, when Cambridgeport was achieving its present character; all three – the single house, the double house, and the row house – were single-family types in that the living unit and the land on which it was situated were capable of individual ownership. Later in the 19th century (around 1870 in Cambridgeport), still within the frontage lot system, new housing types emerged – multi-family types, where the living units were arranged one on top of the other rather than side by side, and where it was no longer possible for each living unit and its land to be separately owned. The distinction between single-family and multi-family types centers around the question of potential ownership of the land on which the living unit is situated.

The early multi-unit types – the two-family house, the three decker, and the tenement block – were related to and often resembled contemporary single-family types, with the distinction that their living units were divided horizontally instead of – or as well as – vertically. They were still thought of as

"houses" and were built for the most part on their own frontage lots, although they came at a time when Cambridgeport was rapidly filling up, and thus many were squeezed onto lots already occupied by earlier houses. At the end of the 19th century, Cambridgeport began to see full-fledged apartment buildings, larger in scale and different in organization from single-family or vernacular multi-family types but still built on individual frontage lots. Only in the last 30 years have new patterns of land organization emerged, in the form of large housing projects built on sites assembled for the purpose, usually involving the closing-off of existing streets and the demolition of earlier buildings.

Single-family housing types will be discussed first, since they preceded and to some extent gave birth to multi-unit types. So extensive was the takeover by multiple types that almost no single-family houses were built in Cambridgeport after 1900.



31. TYPICAL CAMBRIDGEPORT SUBDIVISION PATTERN. DETAIL FROM 1824 TUFTS PLAN

32. DETAIL FROM 1877 CAMBRIDGE BIRDSEYE SHOWING DEVELOPMENT OF LOTS IN FIG. 31

Single House

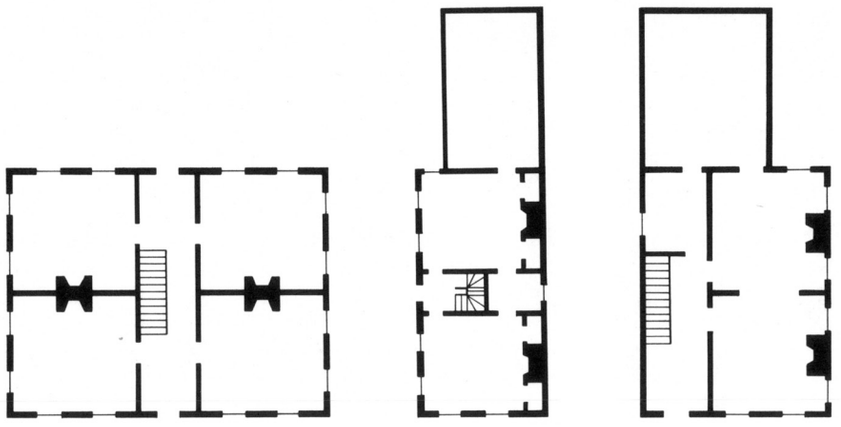
Of the three single-family housing types in Cambridgeport (the single house, the double house, and the row house), the first is both historically and numerically the most important. By "single house," this report means a detached structure intended for occupancy by a single family. A large number of Cambridgeport's single houses have subsequently been converted to multiple occupancy, but if they were designed as singles at the start, they are classified as such in the survey and in this report.

The majority of houses built in Cambridgeport in the first two-thirds of the 19th century were single houses, although double houses were also built in significant numbers. Even after increasing land scarcity caused multi-unit types to predominate, single houses continued to be built in outlying areas (such as lower Cambridgeport near Magazine Beach) until the end of the century. Although relatively few mansions were built in Cambridgeport, there was a considerable size range in the district's single houses, as seen in a comparision of Figures 64 and 82. Small singles, important at the beginning, ceased to be built toward the end of the century, as multi-unit types absorbed the demand for modest accommodations. Nearly all of Cambridgeport's single houses, even the large ones, were of frame construction; fewer than a dozen were built of brick.

The East Cambridge survey report (pages 66-68) outlined three basic plan types for vernacular single-family houses of the first part of the 19th century. Since much of the residential architecture of Cambridgeport is similar to that of East Cambridge, the same plan classifications will be used in this report (Fig. 33).

Plan A was a four-room center-hall plan, with two rooms on either side of the central entrance and stair hall (Fig. 33A). Plan B was a smaller version of A -- a two-room center-hall plan, with one room on either side of the hall (Fig. 33B). Plan C was a side-hall plan, with two rooms opening off the same side of the entrance and stair hall (Fig. 33C). Only the major rooms are mentioned in these classifications; nearly all houses had additional smaller rooms, particularly on upper floors and in ells.

For at least the first third of the 19th century, Plan B was the most common for Cambridgeport's single houses; very few Plan A houses were built in the area. If enough room were available on the lot, the entrance facade faced the street; more generally in Cambridgeport, with its narrow frontage lots, the entrance facades of center-hall houses were along the sides of the lots. Beginning around 1840, single houses in Cambridgeport began adopting the side-hall plan, formerly used only in row houses or halves of double houses. The Plan C single with gable to the street (Fig. 102) is the most ubiquitous single-family type in Cambridgeport – a type that continued to be built until nearly the end of the century. After 1880, however, the rigidity of earlier plan types broke down; it is less easy to classify these later houses, for their porches, bays, and protrusions make them irregular where earlier ones are regular (Fig. 157). But in Cambridgeport, as opposed to Mid Cambridge or the Brattle Street area, this last period is less important for single houses than for emerging multi-unit types.

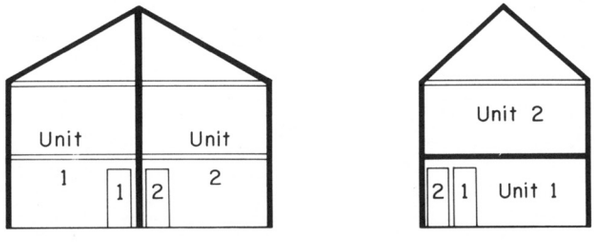


A. FOUR-ROOM CENTER-HALL PLAN

B. TWO-ROOM CENTER-HALL PLAN

C. SIDE-HALL PLAN

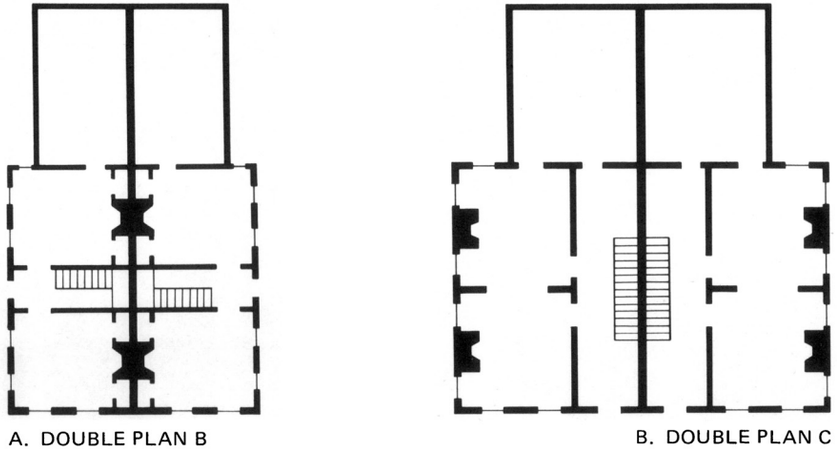
33. SINGLE-FAMILY PLAN TYPES



A. DOUBLE HOUSE

B. TWO-FAMILY HOUSE

34. SCHEMATIC DIAGRAM OF DOUBLE HOUSE AND TWO-FAMILY HOUSE



A. DOUBLE PLAN B

B. DOUBLE PLAN C

35. DOUBLE HOUSE PLAN TYPES

Double House

The double house is the second most important single-family type in Cambridgeport. A double house (called that in the 19th century but more frequently called a duplex today) consists of two living units separated by a vertical party wall (Fig. 34A). This arrangement differs from that of a two-family house (a multi-unit type), where the two units are separated horizontally (Fig. 34B). Although both structures contain two living units, the double house is a single-family type in that each half, together with the land on which it stands, can be owned separately; the two units of a two-family house, being placed one on top of the other and thus occupying the same land, must remain in one ownership.

Historically the double house preceded the two-family house, gradually being replaced by it toward the end of the 19th century. The most common early 19th-century double house consisted of two Plan B's back-to-back (Fig. 35A), generally sharing chimneys going up to the peak of the roof (Fig. 78). Another type of double house, more common in Cambridgeport than the back-to-back Plan B type, consisted of two adjoining Plan C's (Fig. 35B), generally with their entrances paired at the center of the street facade (Fig. 116). This plan-type was particularly prevalent in the era of the gable-to-street side-hall single; during the years 1840-1870, nearly every new house in Cambridgeport followed the side-hall plan, as many did even after 1870. Like the singles, Cambridgeport double houses were nearly all of frame construction; no more than half a dozen were built of brick.

Row House

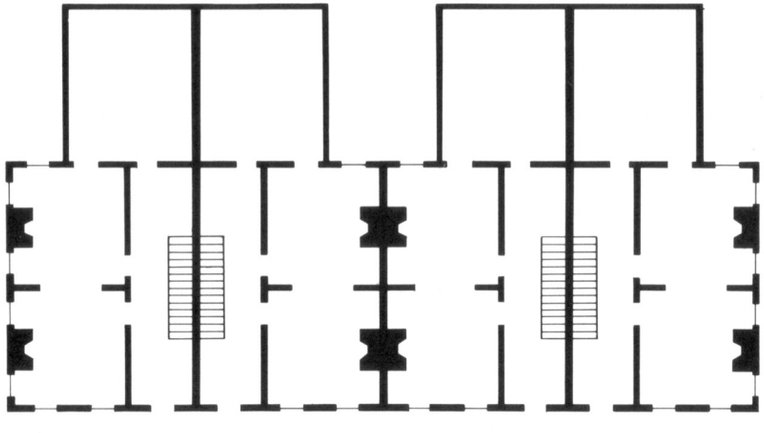
Since the pattern of land development in Cambridgeport was more suburban than urban, the row-house – essentially an urban type – was not as important as the single or double house. A few brick rows, often combining commercial and residential usage, were built at the beginning of the 19th century along the road (Main Street and Massachusetts Avenue) between the West Boston Bridge and Central Square; a fragment of one such row, built in 1807, remains at 452-458 Massachusetts Avenue (Fig. 260). Most Cambridgeport row houses were built between the 1850's and the 1880's. They were too much an urban type for the earlier, less densely settled period, and they gave way to the emerging multiple housing types toward the end of the century. They are significant, however, because of the relation between the row-house group and one of the early multi-unit types, the tenement block.

The row-house group consists of a series of three or more narrow, vertically oriented single-family houses, separated from each other by party walls; each unit, together with its narrow strip of land, can be – and frequently is – in separate ownership. Tenements, as will be seen shortly, involve a horizontal as well as a vertical separation between living units still on the row-house pattern.

Of the three plan-types illustrated in Fig. 33, Plan C – the side-hall plan – was the one used for row houses. In fact, it originated as a town-house plan, necessarily narrow because of the shape of urban lots; only in the second quarter

of the 19th century did it come into use in Cambridgeport for detached single houses. Adjoining row houses, like the halves of double Plan C houses, frequently had their entrances paired (Fig. 90), in which case the rear ells (if there were any) were also paired, sharing the party wall and providing more light and air to the rear yards (Fig. 36). Not all row houses had rear ells, especially if they were built on basements high enough to permit kitchens to be located there; rows without rear ells more often than not had the individual houses lined up next to each other without paired entrances or other unifying features (Fig. 144). As befits a densely built, urban dwelling type, row houses in Cambridgeport were built of brick much more frequently than were single or double houses; still, a number of modest wooden rows were constructed as well.

There is a difference between suburban Cambridgeport's occasional rows and the street after street of row houses in contemporary urban areas of Boston. Especially on Beacon Hill and in the Back Bay, Boston row houses more often than not were built individually, unrelated by ownership or time of construction to adjoining houses but having enough stylistic affinity to make whole streets appear as one. Cambridgeport row houses, on the other hand, were always built in groups of three or four or more, with one owner and builder for each group. In Boston, row-house-width lots were nearly always plotted individually, making unified groups of row houses possible only when one owner bought up a sufficient number of lots. In Cambridgeport, where the lots were initially larger, suburban in scale, and intended mainly for single and double houses, an owner would need only one or two lots for a row-house group, the individual units of which could then be sold off one by one with their narrow strips of land. Once again the pattern of land division helped determine the type of architecture. It is not surprising that many of Cambridgeport's rows, initially built as one, have remained in single ownership despite the fact that the individual units are separable single-family types.



36. PLAN OF TYPICAL ROW-HOUSE GROUP

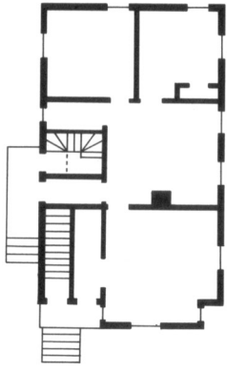
Two-Family House

The various multi-unit types began to appear on the Cambridgeport scene around 1870. The first to appear were the two-family house and the tenement block – both resulting from horizontal subdivision of established single-family types. Later developments brought about the three-decker and the apartment house.

"Two-family house" in this report means a structure with two living units separated horizontally – one above the other (Fig. 34B). It is sometimes difficult to distinguish a two-family house from a single house that has been converted to two living units (as so many have in Cambridgeport), but frequently there are enough telltale signs to enable the distinction to be made. The most common two-family house from about 1870 to 1890 followed the pattern of the gable-to-street side-hall single, except that the building was designed to have one living unit on the first floor (with access to the basement) and another on the second floor (with additional rooms on the third) (Fig. 37). Frequently two exterior doors express the fact that the house has two units rather than one; a more reliable sign of a two-family house is the existence of a two-story rear ell, with a service stair leading to the second-story kitchen of the upper unit.

The plans of two-family houses, at first much like those of the two-room-deep side-hall single with rear ell, soon became wider (allowing rooms on both sides of the interior hall) and deeper (generally three rooms deep without rear ell rather than two rooms deep with ell) (Fig. 38). Larger two-family houses of this type, prevalent from about 1895 to 1910, are characterized by features similar to those of contemporary singles – protruding bays, large front porches, high gable or gambrel roofs with dormers (Fig. 39). From about 1915 to 1930, the

37. TWO-FAMILY HOUSE
(43-45 MAGEE ST., 1887)



38. TWO-FAMILY HOUSE PLAN

two-family house was the most common Cambridgeport housing type; by this time it had become fairly standardized – two-story front porch (often glassed in as a sun porch), two entrance doors (one to each unit) at one side of the street facade, and a fairly low gable (occasionally a gambrel) facing the street (Fig. 40).

Just as there were double houses resulting from the joining of two single-family types, so also were there double two-families, particularly in the period from 1870 to 1900. A double two-family has four units – two (one above the other) on each side of a vertical party wall, with entrances usually grouped at the center of the street facade (Fig. 41).

Nearly all Cambridgeport two-family houses, whether double or detached, were of frame construction rather than brick.

39. TURN-OF-THE-CENTURY TWO-FAMILY HOUSE (164-166 CHESTNUT ST., 1895)

40. 20TH-CENTURY TWO-FAMILY HOUSE (9-11 GRANITE ST., 1930)

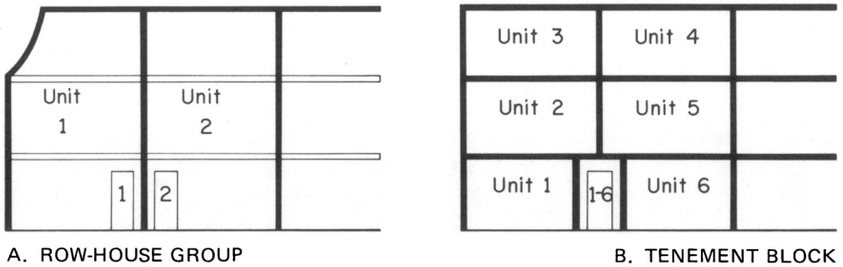
41. DOUBLE TWO-FAMILY HOUSE (66-68 PEARL ST., 1886)

Tenement Block

The term "tenement" implies lower-class urban housing but nothing much more specific. Bearing in mind the customary usage of the term, the Cambridgeport survey has isolated a particular type of multi-unit structure as the "tenement block". This type, which began to appear in Cambridgeport around 1870 and continued to be built until the turn of the century, was an evolved form of row-house group, with horizontal as well as vertical division between living units (Fig. 42B).

Just as it is frequently difficult to distinguish a true two-family from a converted single house, so it is often difficult to tell a tenement block from a group of converted single-family row houses. Telltale features such as rear service ells and stairs help in this case as well (Fig. 43).

Tenements usually had one living unit per floor in each vertical section (corresponding to the old row house), although early tenements (those built in the 1870's) sometimes had two-floor units. In the latter case, each vertical section of the tenement block had one unit on the first floor (with an additional



A. ROW-HOUSE GROUP B. TENEMENT BLOCK

42. SCHEMATIC DIAGRAM OF ROW-HOUSE GROUP AND TENEMENT BLOCK

A. STREET FACADE

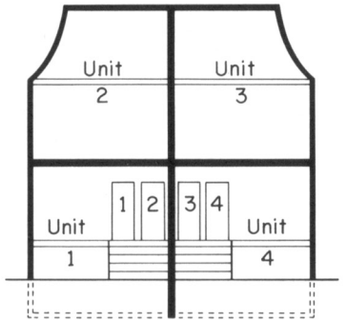
43. TENEMENT BLOCK WITH REAR STAIR PAVILIONS (223-225 BROADWAY, 1873)

B. REAR

room or rooms in the basement) and another unit on the second and third floors (Fig. 44). Early tenements were usually two rooms deep, with or without a rear ell. Three-room-deep plans later became common, but for units on the inside of the block there were problems of light and air for the middle rooms.

Tenements were the standard form of urban workers' housing; their appearance on the Cambridgeport scene occurred when manufacturing was expanding rapidly and land was becoming scarce. Like the row-house groups out of which they evolved, they appeared principally along main roads in the more built-up sections, close to industrial areas. One or more stores were frequently included on the ground floor of tenement blocks. The heyday of tenements in Cambridgeport was between 1870 and 1900; few were built after that, as the three-decker took over as the standard form of workers' housing.

Early tenements (1870's and 1880's) were nearly all of frame construction (Fig. 45); later Cambridgeport tenements (1890's) were generally built of brick (Fig. 46).



44. SCHEMATIC DIAGRAM OF TWO-FLOOR TENEMENT

45. WOODEN TENEMENTS (ROGERS BLOCK, 545 MAIN ST., 1873; DEMOLISHED 1957)

46. BRICK TENEMENTS (COLUMBIA TERRACE, 1895)

Three-Decker

The three-decker evolved in the 1880's as a suburban form of low-cost housing. The standard three-decker is a long narrow building with its short side to the street; the entrance (with one to three doors) is on one side of the street facade, balanced by a bay window the height of the building at the other side of the facade (Fig. 47). There are three nearly identical living units stacked on top of each other, capped by a flat roof. Open rear service porches are another characteristic feature (Fig. 48).

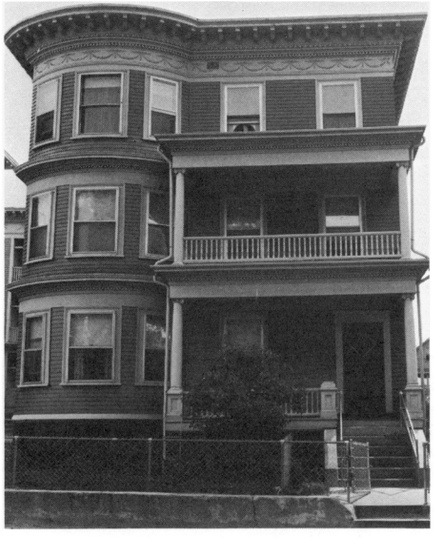
The three-decker is related to the other early multi-unit types (two-family house and tenement block) in having its living units separated horizontally. It can be thought of as an expanded two-family, with three flats instead of two, or more accurately as a kind of detached tenement. In plan the three-decker is generally three rooms deep, with sufficient width to allow rooms on both sides of the hall within each flat (Fig. 49).

Although the three-decker, as its name implies, is nearly always three stories high, it also appears occasionally in four-story form (the four-decker) or in two-story form (essentially a two-family house but designated a two-decker because of its flat roof and other similarities to the decker type). Four-story buildings of frame construction were outlawed by the city building code in the mid-1890's; subsequent four-deckers were more substantially built of brick and are better categorized as apartment houses.

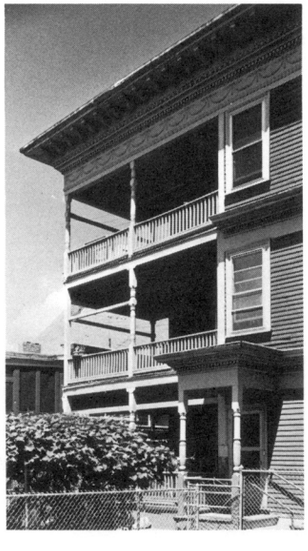
The three-decker began to appear in Cambridgeport in the later 1880's and continued to be built until the 1920's. Few differences other than those of stylistic detail exist between early and late three-deckers except that those of the 20th century frequently (but by no means always) have three-story front porches, somewhat analagous to the porches on contemporary two-family houses (Fig. 50).

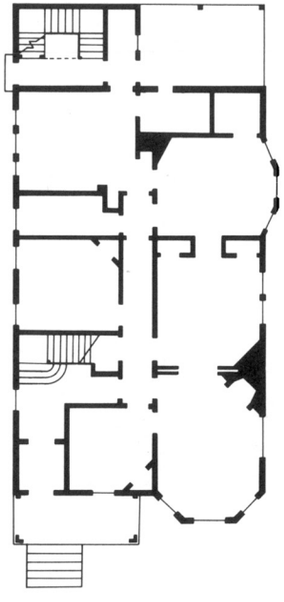
Just as there were double two-families, so also were there double three-deckers, particularly in the early years of the type (late 1880's-1900). Double three-deckers (and double four-deckers – much more common, perhaps because of their better proportions, than single four-deckers) nearly always shared a single entrance at the center of the street facade and a single stairway giving access to the two flats per floor (Fig. 51). Some early three- and four-deckers

47. THREE-DECKER
(431 PUTNAM AVE., 1900;
W. E. CLARK, ARCHITECT)



48. REAR SERVICE PORCHES
(431 PUTNAM AVE.)

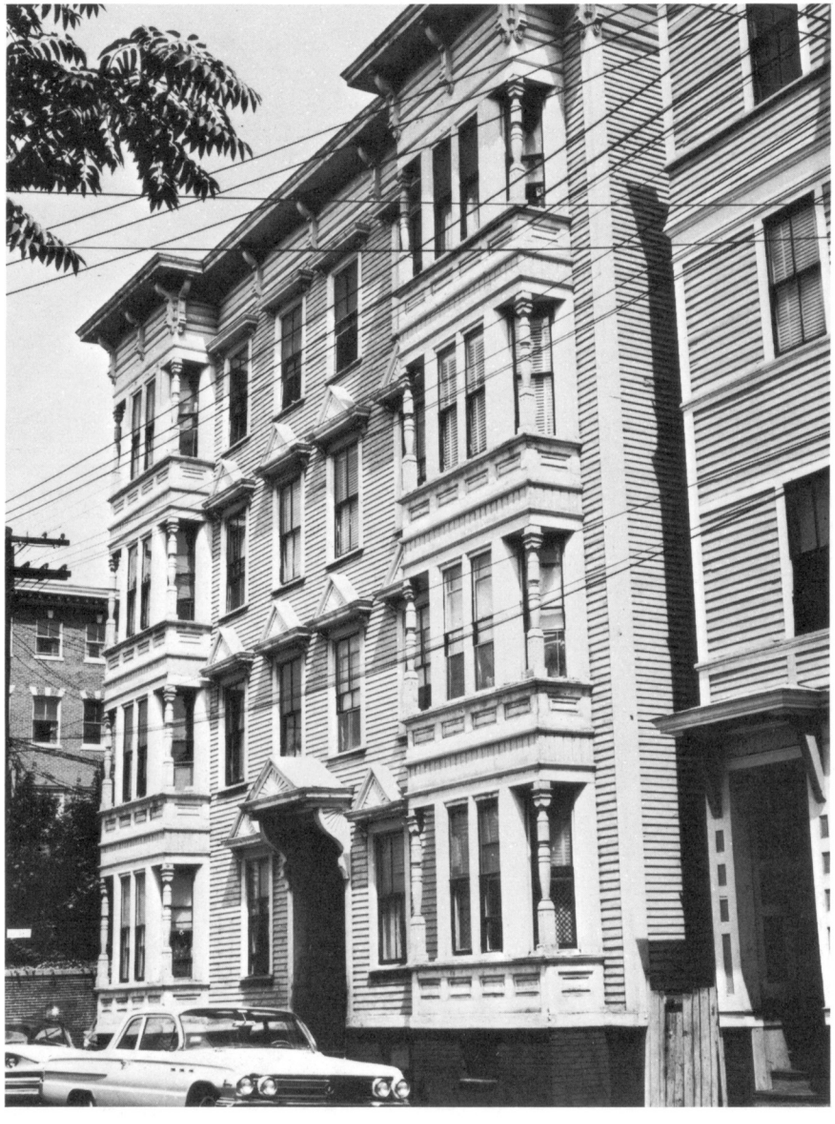




49. THREE-DECKER PLAN
(1667 CAMBRIDGE ST., 1896;
GEORGE FOGERTY, ARCHITECT)

50. 20TH-CENTURY THREE-DECKER
(182 MAGAZINE ST., 1927;
D. J. REARDON, ARCHITECT)

51. DOUBLE
THREE-DECKER
(232 NORFOLK ST., 1895;
CHARLES R. GRECO,
ARCHITECT)



52. DOUBLE FOUR-DECKER (HOTEL FRANKLIN, 90 NORFOLK ST., 1887)

were quite pretentious buildings, elaborately ornamented and given high-sounding names. "Hotel So-and-So" was a particularly common name, reflecting the contemporary American interest in the fashion of "French flats" (called hotels but more analagous to present-day apartment houses than to transient hotels) (Fig. 52). Most three deckers, however, were closer to the lowest level of vernacular housing at the time.

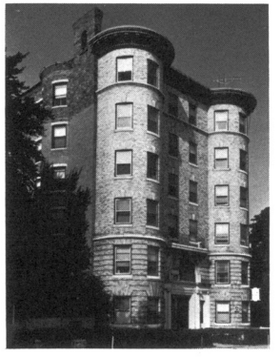
Apartment House

The earliest apartment houses in Cambridgeport were buildings of the double four-decker type. It is a moot point whether these should be classified as deckers or as apartment houses; generally those built of brick are called apartments, those of frame, deckers, since frame construction was a universal characteristic of the decker type. When such buildings go beyond four stories (possible with the introduction of the elevator) or when they have more than one flat on each side of each floor, there is no problem about calling them apartments (Fig. 53). Designed for families, they normally had units of six or seven rooms, duplicating as far as possible the rooms found in single-family dwellings. Single persons or young couples just starting out were accustomed to living in boarding houses rather than to maintaining their own apartments.

The decker-type apartment house prevailed in Cambridgeport until the early 20th century, when a new type began to appear. The new kind was organized around a deep entrance court extending in from the street; entry to the various apartments was made from doors opening off this court into stair halls. Bay windows extending the height of the building continued as important features; brick or stucco were the characteristic exterior materials. Riverbank Court of 1900, a luxurious apartment hotel that now serves as M.I.T.'s Graduate House, was the city's first and foremost example (Fig. 54). More modest and typical were buildings such as Farwell Chambers of 1909 at Pleasant and Franklin Streets (Fig. 55). A trend toward smaller units (three or four rooms instead of seven or eight) accompanied the change to the court-type apartment house.

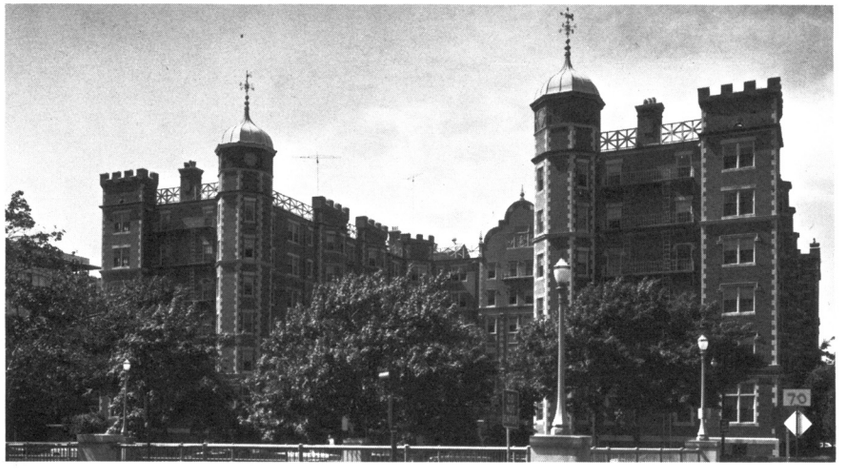
After World War I, apartment buildings lost their many bays and gained flat exterior facades, but the court-oriented plan continued to be popular (Fig. 56). Relatively few apartment houses were built in Cambridgeport during this period because the land was mostly built up and because the economic level of the area was insufficient to support the buying up and leveling of old structures to provide land for new ones. It took the government with its broad powers and resources to instigate the next residential building type in Cambridgeport – that of the public housing project. The first projects of this sort in the city – New Towne Court (1937) and Washington Elms (1941) – were built in Cambridgeport in the years prior to World War II; others followed after the war. The basic feature of all the housing projects was a cluster or grouping of separate small apartment buildings on a large tract of land cleared of older structures through the government's power of eminent domain (Fig. 57). The buildings themselves were mostly the flat-walled, flat-roofed brick type already established for private apartments, with greater freedom of building shape and siting because of the relatively large sites available and with a minimum of stylistic detail or elaboration because of the low-cost nature of the operation. Since the buildings did not have elevators, height was limited to three stories.

The newest direction of Cambridgeport's residential architecture was foretold by one of the more recent of the area's housing projects, Roosevelt Towers (Fig. 58), built in 1949 to designs by Desmond and Lord. This group, with its eight-story, twin-towered main block, as well as its smaller subsidiary buildings like those of the earlier projects, illustrates the trend toward high-rise elevator buildings as a solution to the problem of increasing land costs. Except for a few



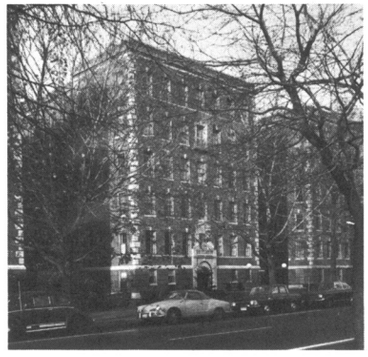
53. DECKER-TYPE APARTMENT HOUSE (THE CANTABRIGIA, 1010 MASSACHUSETTS AVE., 1896; A. H. VINAL, ARCHITECT)

54. RIVERBANK COURT, 305 MEMORIAL DR., 1900. H. B. BALL, ARCHITECT. NOW ASHDOWN HOUSE, M. I. T.



55. COURT-TYPE APARTMENT HOUSE (FARWELL CHAMBERS, 19 PLEASANT ST., 1909; NEWHALL & BLEVINS, ARCHITECTS)

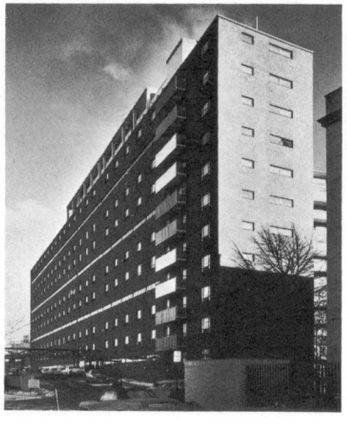
56. POST-WORLD WAR I APARTMENT HOUSE (THE RIVERSIDE, 410-420 MEMORIAL DR., 1926-1928; SILVERMAN, BROWN & HEENAN, ARCHITECTS; NOW BURTON HOUSE, M. I. T.)



57. NEWTOWNE COURT (1937) AND WASHINGTON ELMS (1941)

58. ROOSEVELT TOWERS, 1949. DESMOND & LORD, ARCHITECTS

59. 100 MEMORIAL DRIVE, 1949.
BROWN, DeMARS, KENNEDY,
KOCH, RAPSON, ARCHITECTS



60. 100 MEMORIAL DRIVE. AMHERST ST. SIDE

61. PEABODY TERRACE,
900 MEMORIAL DR., 1964.
SERT, JACKSON &
GOURLEY, ARCHITECTS

62. PEABODY TERRACE.
PARTIAL VIEW

small structures, recent apartment projects in Cambridgeport have all involved high-rise buildings, many taking advantage of fine views by providing private balconies for the various apartments. 100 Memorial Drive (Fig. 59) was the first of the new type; indeed, it was the first postwar apartment building in the Boston area with balconies. It features a skip-stop elevator pattern, with elevator stops and public corridors every third floor instead of every floor, a system that is clearly expressed on the Amherst Street side of the building (Fig. 60). 100 Memorial Drive was conceived primarily as housing for M.I.T. faculty members, though it was built as an investment by the New England Mutual Life Insurance Company. Responsible for the 1949 design was a team of architects consisting of William Hoskins Brown, Vernon deMars, Robert Woods Kennedy, Carl Koch, and Ralph Rapson.

A skip-stop elevator system was also followed at Harvard's Peabody Terrace (Fig. 61), a married-student housing complex containing three 22-story apartment towers and a number of lower structures, including a nursery school, stores, and a parking garage. Despite the large size of the project, human scale was maintained in the various courtyards and open spaces connecting the buildings (Fig. 62). The antithesis of the sort of rigid, formalistic planning exemplified by Roosevelt Towers (Fig. 58), Peabody Terrace sets a standard of design that could well be emulated in future Cambridgeport housing projects. Sert, Jackson and Gourley were the architects of Peabody Terrace, which was built in 1963 at 900 Memorial Drive, a former industrial site along the Charles River.

19th-Century Styles

Classifying a building by type tells only part of the story of its architecture; more varied and interesting is the matter of architectural style. Although the two are interrelated, it is helpful to separate them when, as in Cambridgeport, there is an otherwise overwhelming mass of material to be digested. The following stylistic discussion refers often to the housing types defined in the preceding pages. Emphasis is on single-family types because they were the ones that received the most architectural embellishment.

The principal residential styles in 19th-century Cambridgeport were Late Georgian or Federal, Greek Revival, Italianate or Bracketed, Mansard, and Queen Anne. This arrangement is roughly chronological, although for the styles even more than for the types, the classifications merge and overlap.

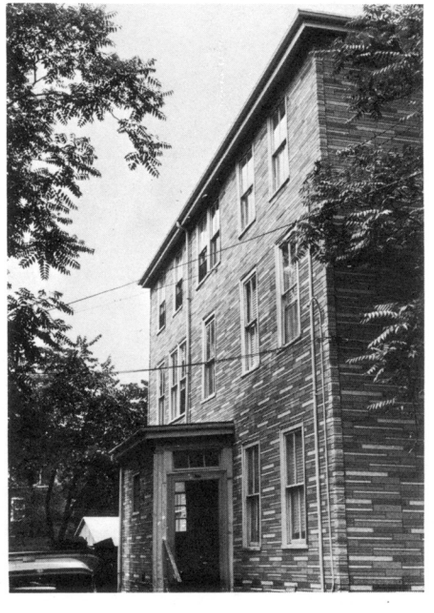
Federal

Except for a few scattered farm houses of which no traces or descriptions survive, the first Cambridgeport buildings were erected after the opening of the West Boston Bridge in 1793. The architectural style of the time, sometimes called "Late Georgian" to denote its position at the end of the English Georgian tradition, is more generally called "Federal" to associate it with the early years of the American Republic. Still bound by Georgian formality and symmetry, the Federal style has a lightness and elegance not found in earlier Georgian; hallmarks of the style are delicate, attenuated detail and such features as oval salons and graceful curving staircases. Although few of these elegant Federal characteristics occur in Cambridgeport, the early vernacular architecture of the district can still be seen to belong to the Federal style.

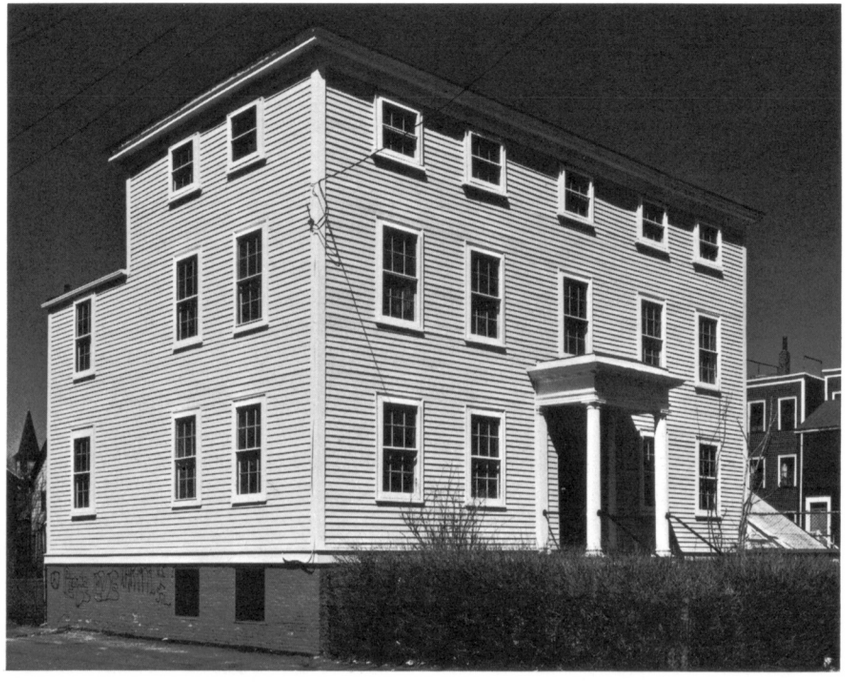
One characteristic of Cambridgeport's Federal buildings is uniformity of plan. There was little variety beyond the basic three plan-types discussed earlier in this report (Fig. 33): Plan A, the four-room center-hall plan; Plan B, the two-room center-hall plan; and Plan C, the side-hall plan. Although these plans could be combined in double houses and in rows, and although there was variation in the number of stories and in the placement of service wings and porches, the underlying room arrangements remained remarkably constant.

The grandest type of Federal house followed Plan A, with a center hall and four principal rooms per floor. Generally three stories high with a low hip roof, such houses were built in large numbers by wealthy sea captains and merchants in towns like Salem. Cambridgeport had few three-story Federal dwellings, only one of which – the Bordman house of 1805 – might be called a mansion.

Andrew Bordman had extensive land holdings in Cambridgeport, having inherited the old Phips farm from his mother, Sarah Phips Bordman; his house at the corner of Windsor and Hampshire Streets was the finest in the area, being described by a contemporary as a "spacious dwelling" and "elegant mansion". The house has since been moved back from the corner, hemmed in by stores and tenements, and converted to flats; nonetheless, its basic mass (35 by 50 feet, three stories high with a low hip roof) and its five-window center-entrance facade (despite replacement sash and artificial siding) hint at its former Federal grandeur (Fig. 63). The interior has suffered even more than the exterior. Partitions have been removed; about all one can see are the corner framing posts and a few sections of thin-wall construction. Nevertheless, the house survives, unlike the comparable mansions of Mid Cambridge (the Inman house, the Dana house, and Shady Hill), all of which have been destroyed.



63. ANDREW BORDMAN HOUSE, 96 HAMPSHIRE ST., 1805



64. MARGARET FULLER HOUSE, 71 CHERRY ST., 1807

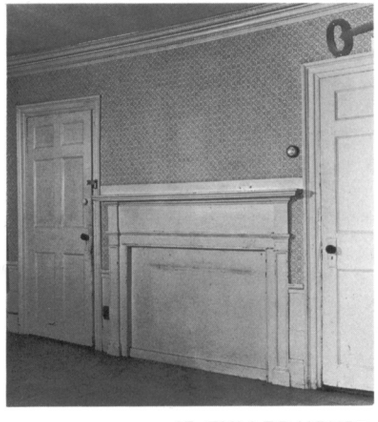
Smaller than the Bordman house, but still a substantial dwelling, is the Fuller house at 71 Cherry Street (Fig. 64). Built about 1807, the house is remembered chiefly as the birthplace in 1810 of Margaret Fuller, later Marchioness Ossoli, a Transcendentalist writer and critic associated with progressive intellectual circles here and abroad. Although the building devolved into tenements later in the 19th century, it acquired its present function as a settlement house in 1902, first under the sponsorship of the Y.W.C.A. and later as an independent organization. Appropriately the building still bears the name Margaret Fuller House.

The house has the tall and graceful proportions characteristic of the Federal style. The sharp clarity of the block-like mass is emphasized by the meager cornice, the low hip roof, and the absence of projecting window enframements or other decoration which might minimize the plane of the wall. The facade follows the almost invariable scheme of two windows on either side of the central door, with the nearly square third-story windows decidedly shorter than those below. The double-hung window sash are divided into medium-sized panes, six per sash.

Although the basic mass of the Fuller house looks as though it is only one room deep, the first two stories follow the full four-room center-hall Plan A (Fig. 33A). Originally there was also a two-story ell to the side, now replaced by a basement-level recreation room for the settlement house. The spacious entrance hall accommodates a wide two-run staircase with simple turned newel posts (Fig. 66). The house preserves much of its original detail, including the

65. MARGARET FULLER HOUSE, 19TH-CENTURY PHOTO

66. FULLER HOUSE. STAIRS



67. FULLER HOUSE. LEFT FRONT PARLOR

interior trim of the left front parlor (Fig. 67) and of one upstairs bedroom. The decoration of mantel and dado is sharp and beautifully scaled, even though accomplished with the simplest means – a series of drilled designs and a molding indented with simple saw cuts.

A 19th-century photograph (Fig. 65) shows the Fuller house with its original ell and with a porch (probably a later addition) across the entire front. The present replacement porch is more appropriate for a Federal house, although its proportions are a bit too massive for the style. The old photograph also shows exterior blinds on the windows and, in front, three large elm trees said to have been planted by Margaret's father on the day of her birth. These elements did much to alleviate the austerity of the house. One must imagine an extensive garden in back, where the paved playground is now, for the Fullers acquired the land all the way to Pine Street (some 200 feet from Cherry) soon after buying the house on its original 40-by-85-foot lot.

Another three-story Federal house, that of Josiah Mason, an early Cambridgeport merchant, survives at the corner of Moore and Harvard Streets (Fig. 68). Dating probably from 1821 and partially remodeled later in the century, this house, like Margaret Fuller's, subsequently became a settlement house. Purchased in 1887 by Pauline Agassiz Shaw and extended to the rear, the building housed the country's first child-care center, founded by Mrs. Shaw in 1878 and still existing as the Cambridge Neighborhood House.

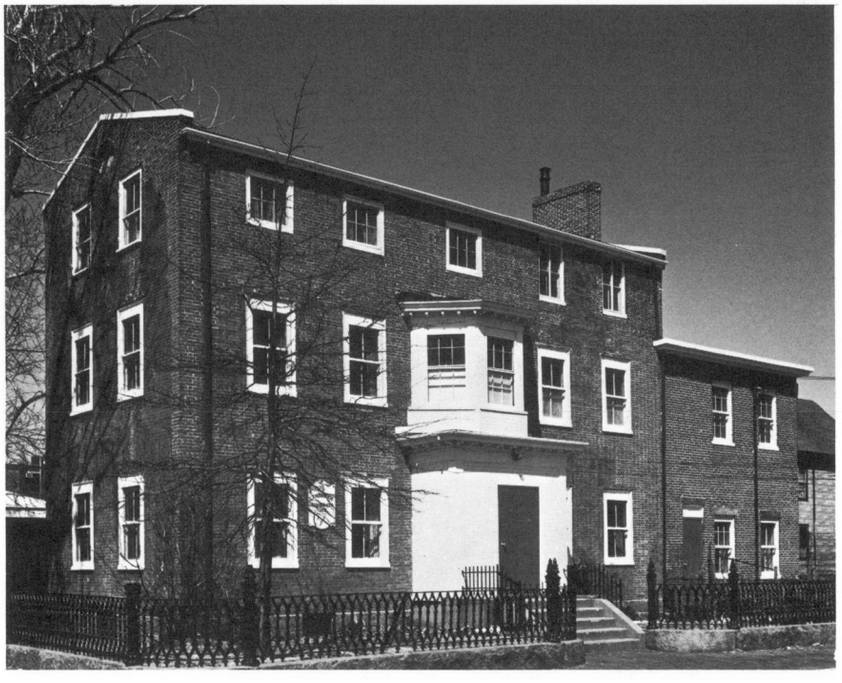
Unlike the Bordman and Fuller houses, the Mason house (or Neighborhood House) is built of brick, unusual for Cambridgeport. It follows the two-room center-hall Plan B (Fig. 33B), with an ell to the side but without additional original rooms to the rear. Its three-run stairway towards the front of the hall is the standard Plan B type, allowing a small room, accessible from the two main rooms, behind the stairs. The hall of the Neighborhood House extends beyond the line of the front wall into a wooden bay which contains the door and two side windows; although this extension has been somewhat rebuilt, the feature is known to be original in other Federal houses in Cambridgeport.

The left-hand parlor of the Neighborhood House, with its rear-wall chimney, has the original Federal mantel, dado, doors, and trim; the right-hand parlor, now extended into the 1888 rear wing, has a Greek Revival marble mantel on the side-wall chimney. The third floor on the Harvard Street end of the house has been opened up to provide meeting space. With the ceiling cleared of appendages, one can see the early 19th-century manner of framing a roof with a few widely spaced purlins supported on heavy trusses and (in this case) on the brick end walls (Fig. 69).

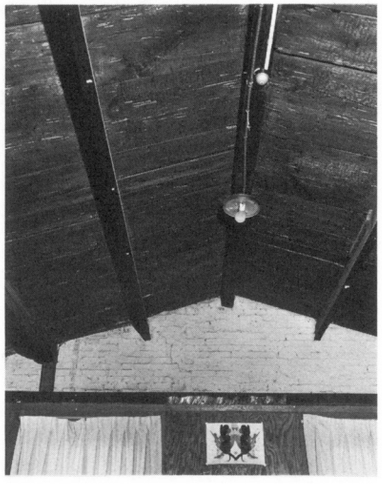
The exterior aspect of the Neighborhood House is basically Federal – five-window center-entrance facade with squat third-story windows, the two right-hand ones later elongated. The roof, however, is a gable rather than a hip, showing that the hip roof was not a universal feature of vernacular Federal houses. Many contemporary Cambridgeport houses have simple gable roofs, with the gable treated as a continuation of the end wall, not set off by moldings or projections. The only unusual feature of the Neighborhood House gable is the parapet-like cornice on the end walls.

The bracketed bay window over the entrance and certain details of the entrance porch itself are mid-19th-century additions. In 1851 the property passed from the Mason heirs to Alexander Dickinson, a Cambridgeport soap-manufacturer; presumably it was he who remodeled the porch, added the bay window, and built the fine cast-iron fence around the front yard. Since the brick work of the ell is not bonded into that of the main house, and since the window lintels of the ell are brownstone (a mid-19th-century material), it seems likely that Dickinson replaced an earlier frame ell with the present two-story brick one. Judging from atlases, the ell in Dickinson's time was connected by a wooden extension to a barn or carriage house further along Moore Street, near the corner of the street which now bears Dickinson's name.

When Pauline Agassiz Shaw purchased the property from the Dickinson estate in 1887, she added a two-story wooden "kindergarten school" to the rear of the house. Although no architect was listed in the building permit of June, 1888, the



68. CAMBRIDGE NEIGHBORHOOD HOUSE, 79 MOORE ST., 1821



69. NEIGHBORHOOD HOUSE.
ROOF FRAMING

design was presumably that of Shaw and Shaw of Boston, Mrs. Shaw's husband's firm. The interior woodwork of the addition was designed with such appreciation for the old structure that it takes a practiced eye to distinguish new from old. The remodeling is an early, albeit modest, milestone in the Georgian architectural revival that took place in the last two decades of the 19th century.

70. 145 ELM ST., 1839

71. 15 SALEM ST., 1841

72. 158 AUBURN ST., 1805

Most Federal houses in Cambridgeport were two stories high rather than three. Good examples in brick are the houses at 241 Washington Street, corner of Windsor (1826), 145 Elm Street, corner of Hampshire (1839; Fig. 70), and 15 Salem Street, corner of Watson (1841; Fig. 71). The Washington Street house follows Plan A (the four-room center-hall plan), but the others, like most Cambridgeport Federal houses, follow Plan B (the two-room center-hall plan). All have the predictable five-window center-entrance facade; all, too, have gable roofs.

A typical feature of these brick Federal houses is a cornice created in simple fashion by laying one row of bricks on the diagonal while projecting the upper course slightly beyond it; a variant scheme alternates the amount of projection in a row of header bricks. Either system creates a nimble pattern of shadows cast by the projecting bricks, adding a note of animation to the otherwise flat, reserved facade. This modest decorative detail also accents the line of intersection between facade and roof.

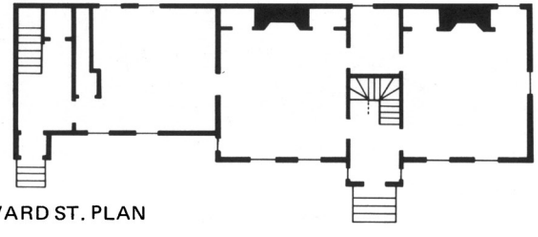
Other noteworthy individual features of these houses are the unusually high basement of the Elm Street house and the over-door decoration on the Washington Street house – wooden louvres laid in the pattern of a fan, unfortunately almost obscured by the later entrance porch.

Wooden houses are much more common in Cambridgeport (and indeed in all of Cambridge) than brick ones. Two wooden Federal houses on Auburn Street, both typical two-story Plan B designs, offer an instructive contrast between the relative merits of preservation and aggressive modernization. 156 Auburn was moved to its present position at the rear of the lot when the three-decker next door was constructed in 1898; more recently it has undergone changes that obliterate all traces of its original character except the pair of chimneys on its long rear wall. By contrast, 158 Auburn (1805; Fig. 72) is one of the most appealing residences in the district. Facing a flower garden it shares with its neighbor, it retains something of the village quality of old Cambridgeport. Over the entrance an arched fan window is filled with simple wood tracery; even the imitation brick composition paper is not too disturbing.

A low hip roof such as the one at 158 Auburn Street is often an indication of an early 19th-century date, but not all houses of the period had hip roofs. There is a gable roof on 172 Harvard Street (Fig. 73), a house built in the same year, 1805, as 158 Auburn. 172 Harvard is similarly sited in having its narrow end toward the street and its center-entrance facade facing the side yard. Its plan (Fig. 74) shows that it has a projecting one-story entrance bay that expands the space of the stair hall. Noted above in connection with the Cambridge Neighborhood House, this characteristic feature of Plan B Federal houses is found also at 14 Worcester Street (1829). Since illumination for the hall is obtained from small windows set in the side walls of the projection, no side lights or top lights are needed about the door. The stairs at 172 Harvard Street follow the rather cramped three-run scheme observed in Plan B houses in East Cambridge and in the Neighborhood House, with an extremely simple balustrade and newel design. Employing angled risers, the stairs are kept as compact as possible in order to conserve space at the rear of the hall for a separate room. Probably this rear room served originally as an auxiliary bedroom, but today it accommodates a bathroom.

In Plan B houses the disposition of rooms on either side of the hallway is the same. The hearth is centered on the rear wall; two windows are placed symmetrically on the front wall and two (sometimes one) on the side wall. The space on either side of the chimney projection is generally filled by shallow closets. In most cases the only places where structural framing posts can be seen are the front outside corners. Four doors per room are standard – two leading to the closets, one to the entrance hall, and one to the small room behind the stairs. A plain wooden dado capped by an ornamented molding is carried around the room at window-sill level. The focal point of the room is the mantelpiece with its drilled and reeded fascia resembling the dado molding. The parlor at 172 Harvard Street (Fig. 75) lacks one of the standard two closets; in its place, a window (now covered) pierced the rear wall. A recent thorough restoration at 172 Harvard revealed the structure of the house; of particular interest is the presence of brick nogging, for stability and insulation, between the exterior wall studs (Fig. 76).

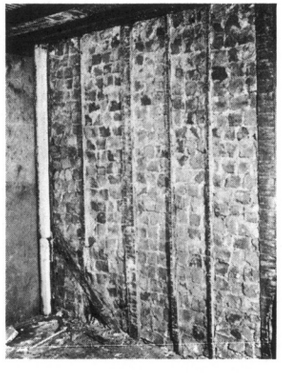
73. 172 HARVARD ST., 1805



74. 172 HARVARD ST. PLAN

75. 172 HARVARD ST.
PARLOR FIREPLACE WALL
DURING 1970 RESTORATION

76. OUTSIDE WALL OF PARLOR
DURING RESTORATION, SHOWING
BRICK NOGGING BETWEEN STUDS



77. 59 BROOKLINE ST., 1809

78. 212-214 HARVARD ST., 1808

Other examples of two-story Plan B houses include 87 Pine Street (1822), 280 Green Street (1822-1825; converted to a tavern), 59 Brookline Street (1809; Fig. 77), and 14 Soden Street.

Although East Cambridge has numerous single-story Plan B houses (referred to in the East Cambridge report as "worker's cottages"), Cambridgeport has relatively few. A variation on the scheme is found at 167 and 169 Cherry Street (1850). Each of these one-story houses has its roof extended beyond the front and back facade to form hoods that are almost deep enough to be porches. Sheltered by the front hood, the entrance hall is pushed forward in the manner of other Cambridgeport Federal houses.

Besides being the most common plan-type for single houses, Plan B was frequently used for double houses in Federal Cambridgeport. An early example is the house at 109-111 Pine Street/3-5 Marvin Place (1804), where each facade faces a different street. Although the building retains several good mantels and dados, the original stairs have been altered in the conversion to multi-family use. A comparable back-to-back Plan B arrangement occurs at 212-214 Harvard Street (1808), with entrances in the more usual position along the sides of the building (Fig. 78). Unfortunately, the exterior of this house has been disfigured by twin windows, never found in the Federal period, and by imitation shingles. Double Plan B houses, one story in height, can be seen at 30-32 and 34-36 Market Street (by 1825).

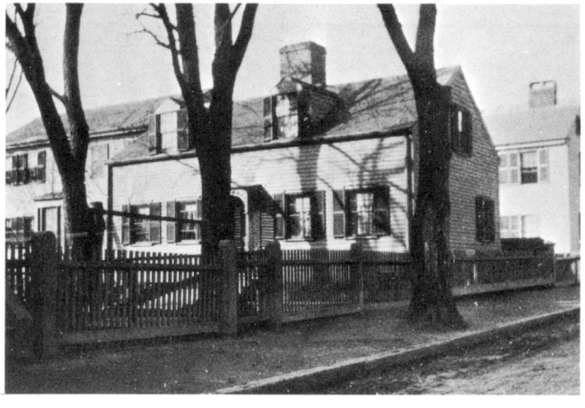
79. 11 MARKET ST., 1831

Unlike East Cambridge, Cambridgeport has practically no Plan C single houses of the Federal period. A rare example is hidden behind a phalanx of three-deckers on Green Street at 2 Franklin Place. The fact that the house has been moved at least once makes it impossible to date, but the interior trim and the presence of brick nogging (a non-structural fill of brick and mortar placed between framing members as insulation) attest its age. A more important example built of brick stands at 11 Market Street (Fig. 79). The brick cornice of this 1831 house is a good Federal detail, but the pilaster enframement of the entrance indicates the emerging Greek Revival style.

Plan C units in pairs are more common, though they do not occur with the frequency of double Plan B's, nor with the regularity found later in the Greek Revival. A well-preserved example is 16-18 William Street (Fig. 80), built in 1828 on Pearl Street and moved in 1847 to its present location. Stephen D. Brown was the housewright. In addition to Federal door trim, mantels, and newel posts, 16-18 William Street has paired front entrances that project in the manner of many single Federal houses in Cambridgeport. A pleasant one-story version of the same scheme, including the projecting halls, was built at 6-8 Salem Street in 1829.

Not all Federal houses follow the standard plans or elevations. For example, Cambridgeport has two one-story center-hall houses with central chimneys – 108 Auburn Street (1822; Fig. 81) and 23 Fairmont Street (1823; Fig. 82). In each of these houses, the large central chimney and the compact massing recall much earlier, even 18th-century, structures. Another variant plan occurs at 86 School Street (1835). Sited with its narrow end to the street, this tiny house, like the East Cambridge worker's cottage, is entered from the flank, but the entrance is not related to the narrow stairs to the two-room attic. Instead, the stairs are placed against the long side wall of the back room. The late date of this example is attested by the absence of fireplaces; only stove outlets are provided by the central flue.

80. 16-18 WILLIAM ST., 1828. STEPHEN D. BROWN, HOUSEWRIGHT



81. 108 AUBURN ST., 1822. OLD PHOTO

82. 23 FAIRMONT ST., 1823

83. 27 GRANT ST.

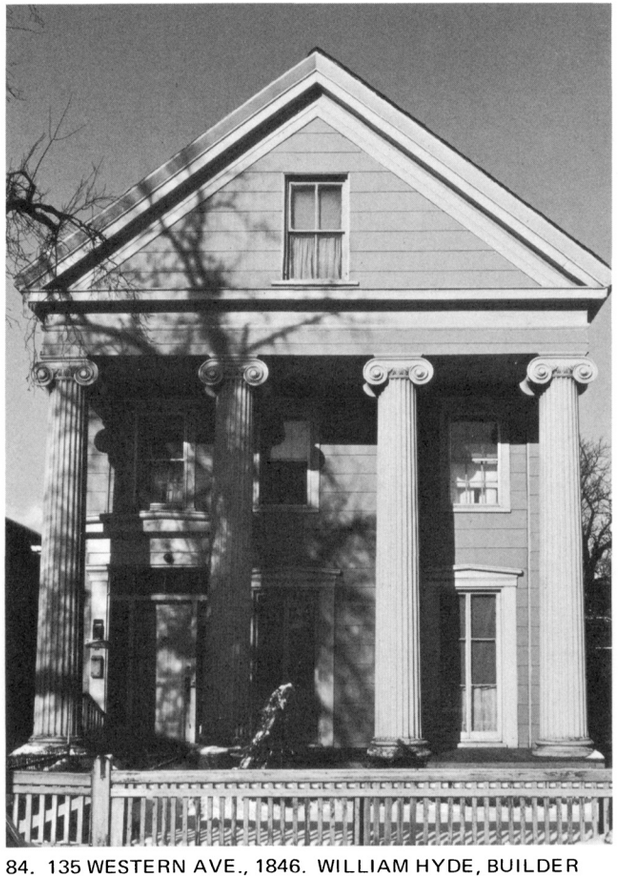
Several Federal-period houses in Cambridgeport contain irregular elevations. For example, a rear lean-to roof occurs on the double house at 22-24 Fairmont Street (1840). So suggestive of earlier work is the lean-to, a feature not otherwise found in Cambridgeport, that the records were double-checked and the interior inspected, but no evidence was found for earlier construction. The house at 27 Grant Street (Fig. 83) has an unusual four-bay facade, placing the entrance and chimney off center. The interior detailing and the large central chimney suggest a date much earlier than 1865, when the house was moved to its present site. Another asymmetrical facade occurs at 26-28 Fairmont Street (1847). Generally, however, the Federal builder's acceptance of symmetry was as placid as his compliant repetition of a few standard plans.

The Federal idiom disappeared slowly in the everyday architecture of Cambridgeport. Federal-style houses as late as 1847 or 1850 have been noted, a full stylistic generation after Federal went out of fashion for important buildings. The typical Plan B and the simple exterior fuse imperceptibly into vernacular building of the mid-century, so that it is difficult to say just where the Federal style ends in Cambridgeport. It is also easy to lose the Federal feeling when a house is remodeled, when its large chimneys are removed, or when windows with many small lights are replaced by one with larger panes. Although hallmarks of the style are close-cropped gable roofs and tight juxtaposition of eaves over windows, these points are easy to overlook. For example, the house at 59 Brookline Street (Fig. 77) might well have passed unnoticed, had not its presence on the Hales map of 1830 called for a routine check. Despite its late, large-paned windows and its bracketed entrance hood, the house is proved by tax records to have been built in 1809.

Greek Revival

During the middle third of the 19th century, American architecture underwent a metamorphosis, moving from the thin, precise elegance of the Federal idiom to the heavy, forthright manner that prevailed about the time of the Civil War. If coarser, this late work was more inventive, less stereotyped than what went before. The Greek Revival style represents the first step in this change.

Buildings of the Federal period, whether produced by professional architects or by vernacular carpenters, achieved a uniformly high level of craftsmanship and design. This proficiency seems to have been attained instinctively, the result of a consistent building tradition. Plans, shapes, elements of decoration, whole formulas of design were accepted as a matter of course; one result is an urban harmony that is the envy of modern planners. Greek Revival buildings, by contrast, show signs of becoming self-conscious, ingenious, assertive. Although no new house plans developed beyond those used in the Federal period, the side-hall plan for single dwellings increased in popularity. More significant changes occurred in the massing of structures and in the importance of applied ornament. The calm, geometric abstraction of Federal work gave way to a complex and heavily plastic feeling, a change that accelerated with the years, culminating in the Queen Anne movement in the last quarter of the century.



84. 135 WESTERN AVE., 1846. WILLIAM HYDE, BUILDER

Cambridgeport is rich in Greek Revival architecture, although it lacks the elaborate examples found in other parts of the city, particularly in Mid Cambridge. Only one house with a two-story portico remains in the survey area, and even that example is a small and naive design (Fig. 84). It seems almost impudent for William Hyde, who built 135 Western Avenue in 1846, to have squeezed so pretentious a feature as a temple front on a house of such ordinary dimensions, yet the resulting inconsistencies provide a large measure of the building's charm. The door and window openings, with their heavy Greek Revival trim, are not quite centered between the columns. The slope of the pediment is increased to an unclassical angle to secure serviceable headroom in the attic. The stock door frame, with its pilasters and pedimented lintel, is so crowded within the small space of the facade that it competes with the portico. Flush facade boarding and floor-length windows leading to the veranda give way to ordinary clapboards and six-over-six sash on the sides (the siding now obscured by asbestos shingles). Although the house is far from a correct or convincing Greek temple, the attempt is disarming, and the house serves a useful purpose in breaking the monotony of the busy trafficway that Western Avenue has become.

85. 11 MAGAZINE ST., 1846.
WILLIAM HOVEY, JR., ARCHITECT.
MANSARD ROOF AND
ENTRANCE BAY LATER

86. 27-29 WILLIAM ST., 1838

A more substantial and more conservative Greek Revival house survives at 11 Magazine Street (Fig. 85). Built in 1846 by architect William Hovey, Jr., the house began life as a broad-pilastered Greek Revival residence facing Franklin Street. A mansard roof and a new entrance bay were added later – perhaps in 1861, when the property changed hands. In 1889, to make room for the three-decker on the corner, the house was rotated to its present position facing Magazine Street. Further changes have occurred in recent years, with the simplification of the entrance porch and the addition of aluminum siding. Despite these indignities, the house still retains an air of distinction (appropriate to its present function as a funeral home), thanks to the handsome proportions of the four broad pilaster panels that divide the facade. Originally this house must have resembled the Jared Sparks house at 21 Kirkland Street (1838) or the house at 127 Mt. Auburn Street, corner of Story (1847), the latter also having received a later mansard roof.

The largest Greek Revival buildings in Cambridgeport are double houses. The most impressive example, consisting of Plan C (side-hall plan) units with paired entrances, is the double house built by Charles Valentine in 1838 at 27-29 William Street, corner of Magazine (Fig. 86). A spacious Ionic porch extends across the entire 42-foot facade, and a long rear ell accommodates a dining room and kitchen for each half. The ample yard still preserves something of the quiet suburban atmosphere that once pervaded this part of Cambridgeport.

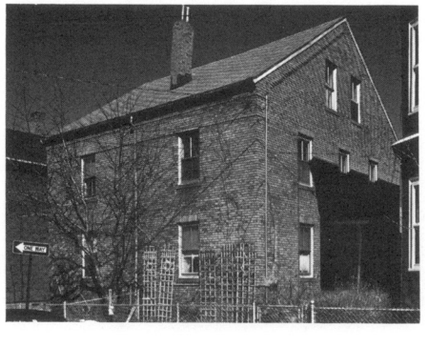
87. 288 WASHINGTON ST., 1837

A number of good-sized Greek Revival double houses, interspersed with singles, fronted on Broadway between Elm and Inman Streets, but most of the examples lying within the limits of the present study have been considerably remodeled. Cross streets like Tremont and Elm have a few paired Plan C houses of smaller scale, but most of the doubles in this area follow Plan B because that scheme requires less frontage.

A curious but not unprecedented double house stands at 288 Washington Street (1837; Fig. 87). Seen from the front it appears to be a normal center-hall dwelling, but it also has an entrance on its right flank. The arrangement turns out to be a combination of Plans C and B. The center doorway of the facade leads to a side-hall plan in the left half of the building, while the side entry opens into a small center-hall house on the right. On a more extensive scale (four units instead of two), this scheme occurred in East Cambridge at 45-51 Gore Street (by 1821).

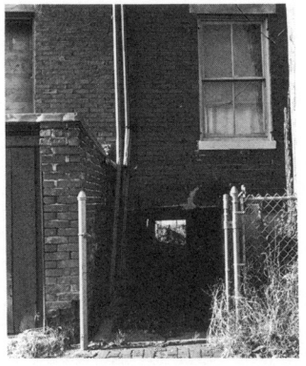
Of considerable architectural interest are two double houses of pressed brick at 55-57 Fairmont Street (1855; Fig. 88) and 72-74 Hampshire Street (1854; Fig. 89). Undeniably Greek Revival are the elegant and rather thin brick moldings that cap the main facades. These moldings differ from earlier Federal designs by representing a complete entablature, not just a cornice. Both houses also employ a subtle raked cornice of corbelled brick to cap the gabled walls.

88. 55-57 FAIRMONT ST., 1855



89. 72-74 HAMPSHIRE ST., 1854

90. 183-189 WINDSOR ST., 1850-56



91. 183-185 WINDSOR ST.
TUNNEL TO REAR YARDS

Brick single houses are few in number. Although 180 Pearl Street was built as an office for the C. L. Jones Soap Company before 1854, it is completely domestic in scale and appearance. Later in date (1873) and really post-Greek Revival in style is 11 Lawrence Street, with its corbelled panels worked into the brick cornice and its segmental arches with drip moldings over the windows.

Cambridgeport has a number of brick row houses with Greek Revival characteristics. At 183-189 Windsor Street (Fig. 90) is a four-house row that was built in two sections, although the design is continuous; the left-hand pair (183-185) dates from 1850, the right-hand pair (187-189) from 1856. A tunnel in the basement between 185 and 187 (Fig. 91) once provided access to the rear yards of the two center houses – an awkward but necessary arrangement for row houses when there are no alleys. The facade of the row is capped by delicate brick bands that suggest a full entablature.

Another row of four houses, 99 Austin Street, dates from the same period (1855). This row was drastically remodeled inside and out in 1965 when the houses were converted into offices for Cambridge Community Services (Fig. 92). Without camouflaging the structure as modern, the remodeling sounds a contemporary note by contrasting the granite, brick, and plate glass surfaces in a straightforward way and by adopting an imaginative spatial composition for the new interior staircases.

92. 99 AUSTIN ST., 1855. REMODELED 1965.
SEE FIG. 381 FOR FULL VIEW OF ROW

93. 261-263 WASHINGTON ST., 1845

Single Greek Revival residences are abundant in Cambridgeport, although there are few four-room center-hall houses. One example of Plan A, built in 1837, exists at 296 Washington Street. This modest house, lacking even the accent of a free-standing porch, was the home of Lucius R. Paige, author of the definitive *History of Cambridge* (1877). The front door, now changed, had an unusual pointed-arch center panel with anthemion designs in the spandrels. Similar doors can be seen in Mid Cambridge at 1715-1717 Cambridge Street (1845).

A number of corner houses appear to utilize the regular four-room Plan A, but examination shows them to be double Plan B houses. Examples include 315-317 Broadway, corner of Prospect Street, built in 1844 (the corner store was added later), and 261-263 Washington Street, corner of Cherry (1845; Fig. 93). Provided with a common porch on one side and a service wing on the other, this composition looks like a single dwelling. Only the placement of chimneys along the party wall suggests a double house, since the drawing rooms of a Greek Revival mansion would ordinarily be connected by double doors, not separated by fireplaces. The bracketed entrance hood is a later addition.

While Plan B Greek Revival single houses are uncommon in Cambridgeport, Plan C singles are too numerous to catalogue. The popularity of the side-hall plan probably lay in the fact that a narrow facade permitted the designer to suggest the proportions and members of a temple front. In the hands of Greek Revival builders this scheme is used with great flexibility, nearly always on a more modest scale than that of the two-story columned portico. One of the handsomest schemes uses full-length pilasters on a two-story facade. The house at 40 William Street (1838), which has pilasters on the side as well as the front, has been ignobly shorn of capital and window trim and has been covered by shingles, a design as well as fate that it shares with 93 Otis Street (1842) in East Cambridge. An unorthodox design projects a full second-story and gable over a first-story porch; examples are 120 Magazine Street (1844) and 36 Cottage Street. More conventional two-story Greek Revival side-hall houses, with or without front porches, can be found in the Broadway, Washington, and Magazine Street neighborhoods.

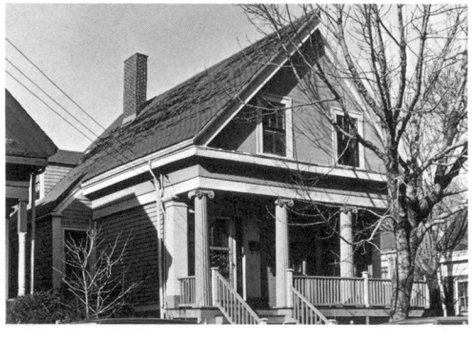
Greek Revival houses evocative of temples were fashionable in Cambridgeport from about the mid-1830's to the mid-1840's. Although popular, the style received some negative criticism, as in the following passage from an article in the *North American Review* for October, 1836:

> Of late, it has become much the fashion to build country houses in the form of Grecian Temples with a projecting portico in front, resting on very magnificent columns. This style prevails at Cambridge. These classical models, which surround the college, are imitated closely in Cambridgeport. Two or three specimens of this style are to be seen on the road which forms the continuation of the old Concord turnpike through the Port. One of them in particular we have noticed, as it has been in progress. It is a small edifice, the whole length of which, including the portico, may possibly be thirty feet, and the breadth fifteen. The front of this little building is adorned with four massive fluted columns, with elegantly carved Ionic capitals, the cost of which can scarcely have been less than that of all the rest of the house.

Despite such criticism, small Greek Revival houses are among the most interesting in Cambridgeport, as well as the best preserved. Some two-story examples contain only one room and an entrance hall in the main block, plus the service ell. This variation of the side-hall house creates a stumpy cube-like shape, the proportions of which are emphasized by a heavy horizontal entablature and by the strong vertical corner pilasters. Good examples of this type are 267 Broadway (1838; Fig. 94), 128 Cherry Street (1844) and 43 Hancock Street (1844). With Greek Revival adaptability, the entrance can be placed on the gable front or on the side, while the service wing is kept small and subordinate. To avoid competition with the main roof, the upper story of the wing is often reduced in height.

94. 267 BROADWAY, 1838

95. 50 COTTAGE ST., 1844,
BEFORE 1969 REMODELING



96. 79 NORFOLK ST., 1843.
ZENAS CROWELL, HOUSEWRIGHT

Cambridgeport fortunately has its share of one-story Greek Revival cottages, examples of which are scattered throughout the city. These delightful gable-ended structures occur both singly and in groups. 50 Cottage Street (1844; Fig. 95) is the smallest of a group of five Greek Revival cottages, each slightly different. A minimal five-room house, it lacks a portico but employs corner pilasters and a pedimented gable. Somewhat different is a version of the Greek Revival cottage that combines a Greek portico with a Gothic gable and bargeboard, as at 8 and 17 Worcester Street, both built in 1839.

Unusually charming and well maintained is 79 Norfolk Street (Fig. 96). Built by Zenas Crowell in 1843, it was one of four similar cottages facing Norfolk Street, each constructed by a different carpenter. 79 Norfolk is the only one that has escaped mutilation, giving eloquent witness to what the group could look like if restored with care. The high level of the main floor is the result of later remodeling, at which time the line of the front porch was moved forward in front of the columns. At the same time a hot-air furnace was added, with ducts leading to the two parlor fireplaces; the air came out of vertical registers placed in the fireplace openings, which have the standard white marble mantels of the late 1860's. Details of 79 Norfolk Street are beautiful, although they represent nothing more than the standard trim of the period. Crosseted window and door frames are used both outside and in; the main stairs have a scroll newel; and the Ionic columns and capitals were factory-made.

Bracketed

As shown in the East Cambridge and Mid Cambridge reports, the Italianate-Bracketed style is an amorphous classification. Inspiration for the movement came from the Italian Villa style, which had produced in the late 1830's and 1840's a number of impressive American country houses. A more distant source was Sir Charles Barry's series of fashionable London clubs that emulated Italian Renaissance palaces and inspired the design of such American civic structures as the Boston Athenaeum of 1847. The Renaissance in Italy was too remote and unknown to have had much direct influence in the United States.

As the style filtered down to the level of everyday architecture, it lost much of its Italianate quality (or what Americans of the day thought was Italianate). The informal massing and irregular silhouette of a country villa were as beyond the scope of a modest suburban dwelling as was the profuse but disciplined stone ornamentation of buildings like the Athenaeum. Nevertheless, vernacular builders of the 1850's did what they could to emulate such features. To houses with traditional plans, they added an overlay of decoration that was as Renaissance as they knew how to make it. But as Italianate designs were transferred into wood, they became more florid and less Classical. By 1850 the bracket had emerged as the characteristic element of decoration, despite the fact that it had never played a significant role in Italian Villa design.

The bracket lent itself to all sorts of modifications and variations, particularly when ingenious Yankee carpenters turned their jigsaws and lathes to the task. After the Civil War, practical carpenters discovered the economic advantages of producing brackets en masse; stock designs appeared with increasing frequency and elaboration, continuing in use through the 1880's.

So inexpensive yet gaudy was bracket decoration that it was incorporated into other systems of architectural ornament – Greek or Gothic Revival, French Academic, even Queen Anne. It is therefore impossible to establish sharp lines between the Bracketed and other mid-century styles. The engrossing and sometimes exasperating thing about vernacular architecture of the period is the way architectural idioms blend. Nonetheless, a typical Bracketed design of the 1850's has a distinct flavor when compared to one of the Greek Revival.

The most frequently encountered Bracketed design is a two-story house following the side-hall plan (Plan C). With gable ends facing the street, such dwellings fitted narrow lots and could be built in series. A textbook example is 232 Prospect Street (Fig. 97). Built in 1861, it was valued on the tax rolls at $3,000 (a medium price for that day). Its Italianate-Bracketed features are readily identified: two large brackets supporting the entrance hood, smaller brackets in the window heads, a large bay window, quoin blocks instead of pilasters, a round-headed window in the gable, and a main cornice that returns at the corners but does not continue across the facade to form a Classical pediment. In addition, both the slope of the roof and the general proportions of the building are slightly more vertical than in Greek Revival design.

97. 232 PROSPECT ST., 1861

98. 3 WILLIAM ST., 1857

A second Plan C house, 3 William Street (1857; Fig. 98) is somewhat closer to Italian Villa precedents. Noteworthy is the use of flush siding on the facade, recalling the smooth plaster surfaces of contemporary villas and effectively setting off the quoins and window trim. The broad cornice is supported on elegantly detailed, evenly spaced brackets, which in this case should more accurately be called modillions. Although the distinction between brackets and modillions is a fine one, modillions are laid in a horizontal rather than a vertical direction and adhere to Classical precedents. As in the Prospect Street house, window frames are given greater emphasis than in Greek Revival designs. The architrave moldings that frame the windows and the voluted corbels beneath the sills call attention to the openings and enhance the plastic interest of the facade. The front porch, the aluminum blinds, and the stained glass windows on the side elevations are obvious later additions.

Two variants of the side-hall plan should be noted. At 12 Magazine Street (1856; Fig. 99), housewright James H. Sparrow varied the scheme only to the extent of placing a small bay-windowed room next to the entrance hall. The extra window created a pleasant (though asymmetrical) balance with the more usually placed bay of similar proportions; in between was an elaborate, almost capricious bracketed entrance. The house was demolished in 1969. At 102 River Street, corner of Cottage Street, stands a side-hall house with a large side ell and cross gables as big as the facade gable (Fig. 100). More complicated massing and heavy ornamentation about windows and doors indicate a later date – 1861. The elaborate entrance brackets (Fig. 101) are particularly impressive. 102 River Street clearly demonstrates that architectural character can be maintained if ornamental trim is not stripped off when artificial siding is added.

A modest version of a Bracketed side-hall dwelling is 13 Cottage Street (Fig. 102), one of a group of three houses built in 1868. Valued then at $4,000, the house is almost without ornament except for a bracket-supported canopy over the main entry. Brackets at the eave line are omitted, and the entrance has a single rather than a double door. (The stock door with twin rounded glass panels

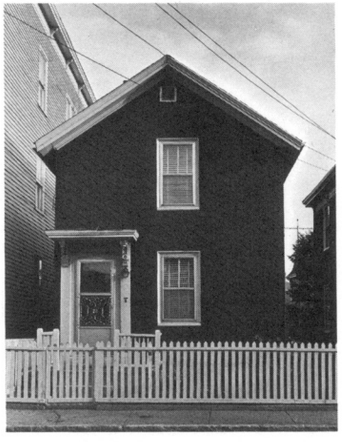
99. 12 MAGAZINE ST., 1856. JAMES H. SPARROW, HOUSEWRIGHT. DEMOLISHED 1969

100. 102 RIVER ST., 1861

101. 102 RIVER ST. ENTRANCE PORCH BRACKET

is one of the handsome industrial products of the time.) The main eaves are returned, but the eave line has not been continued across the facade to suggest the traditional pediment. Even the window heads are without bracketed cornices, but the gable has a characteristic arched window.

102. 13 COTTAGE ST., 1868
JAMES H. SPARROW, HOUSEWRIGHT



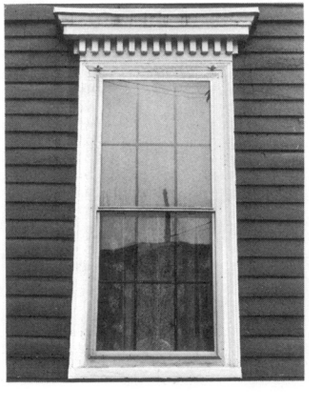
103. 28 UNION ST., 1867

The only further simplification of the Bracketed side-hall house is the complete elimination of cornice returns on the facade. Such a design is found at 28 Union Street (Fig. 103), built in 1867. This house represents the irreducible minimum; a builder desiring anything smaller would have to go back to the old-fashioned Greek Revival cottage like 141 Fifth Street in East Cambridge. In Cambridgeport, however, no such units were constructed.

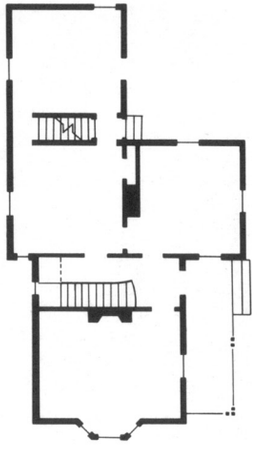
Plan B houses offered designers somewhat more scope for originality in design than did the side-hall plan. A pleasant but uncommon solution at 48 Pleasant Street (1859; Fig. 104) places the house broad side to the street and incorporates a low gable in the middle of the facade, directly over the entrance. Although lacking brackets, the house can be called Italianate because of its symmetrical massing, broad eave overhang, oculus window in the gable, and absence of specifically Greek details. The first-floor window frames (Fig. 105) are capped by strong cornice moldings and are supported by dentils, while the muntin windows, by this time somewhat old-fashioned, provide a sense of scale.

104. 48 PLEASANT ST., 1859

105. 48 PLEASANT ST. WINDOW



106. 7 UPTON ST., 1866



107. 7 UPTON ST. PLAN

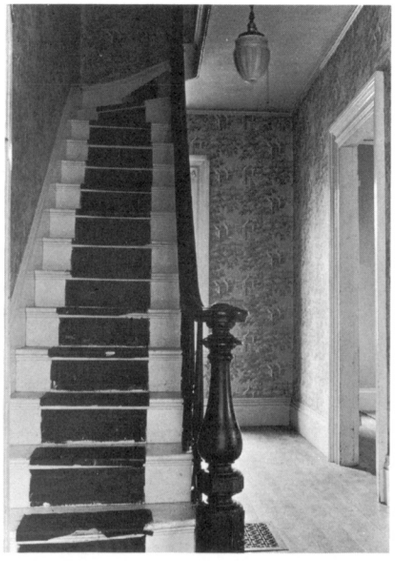
A recently demolished house at 7 Upton Street (Fig. 106) epitomized vernacular Bracketed design at mid-century. Built in 1866 by Joseph Holmes and sold the following year for $5,000, it had the looser plan and irregular massing that larger houses had been employing for some years. The irregular T-shaped plan of 7 Upton (Fig. 107) was a modification of the familiar Plan B entered from the side yard; the front and back walls were simply pushed out to accommodate two rooms on one side of the center hall. A standard service ell contained the kitchen and back stairs.

The T-shaped plan of 7 Upton resulted in a massing that was considerably more active than the boxlike forms of Greek Revival times. The traditional ridge roof was checked by a cross gable of almost equal height that thrust out to cover the library ell. Opposite that was a minor projection, one story high, containing the dining room; the kitchen wing with lower eaves and ridge line repeated the slope and direction of the main roof, and a one-story porch occupied the front corner of the composition. Seen from the street, the front and side gables of almost equal size competed for dominance.

Not as ornate as they sometimes became at a later date, the paired brackets that supported the overhanging eaves were relieved by small drops at their outer ends. The cornice did not continue across the gable to form a pediment but turned the corner far enough to be carried by a pair of brackets. Below the brackets the corner board was fairly wide but not treated as a pilaster. The corner porch was carried on trellised supports whose thin wooden designs were cut with a jigsaw.

Another indication of Italianate-Bracketed origin was the presence of roundheaded windows in the moderately steep gables. These were actually nothing more than rectangular double-hung windows whose upper sash combined quarter-round panes with wooded spandrels. From the outside, however, they had rounded frames and looked like true arches. As in most buildings constructed after 1850, the window panes were large, with a single vertical division in each sash. These are called two-over-two windows -- two panes in both upper and lower sash.

108. 7 UPTON ST.
HOT-AIR REGISTER AND MANTEL



109. 7 UPTON ST. STAIRS

The second floor of 7 Upton had four bedrooms, one of them later remodeled into bath and sewing rooms. The sole original water closet seems to have been located in the basement, and no provision was made for a tub. Such a paucity of plumbing continued even in moderately priced houses like 7 Upton until the mid-1870's. Two finished rooms were in the attic. Room sizes throughout the house were somewhat smaller than one might have expected, and the main hall seemed narrow. None of the rooms had a fireplace. Instead, there were hot-air wall registers set in shallow recesses; above them were marble shelves supported on iron brackets, recalling traditional mantels (Fig. 108). That this arrangement was not an alteration is indicated by the way the baseboard edging returned to the floor on each side on the register recesses. It is probable that there were two furnaces, one for each of the two main chimneys of equal size. Hot-air ducts to the wall registers were carried in the same chimney stacks as the flues.

The straight-run staircase had a pot-bellied newel with a somewhat exaggerated profile (Fig. 109). Doors and windows of the principal rooms were framed with moldings that had a more intricate and robust profile than that used for Greek Revival interiors. Subsequently painted white, the interior trim was probably originally a dark color. The front and kitchen doors retained traces of graining, a painted design that simulates the natural grain of wood.

More common and conventional statements of Plan B are found at 34 Magazine Street and 301 Brookline Street. The Magazine Street house (Fig. 110) is beautifully maintained and demonstrates how attractive and well suited to present-day living residences in the heart of the city can be. The facade has been slightly altered, probably in the early 1920's, by the addition of Georgian Revival porch columns, shutters, and muntin windows. As a result the house appears surprisingly like a 20th-century design. Nevertheless, the bracketed cornice, the side bay window with elliptical arches, and the arched window of the attic are clear indications of the 1855 construction date. Despite a dreary

110. 34 MAGAZINE ST., 1855.
JAMES H. SPARROW, HOUSEWRIGHT

111. 7 FLORENCE ST., 1852.
ORIGINALLY AT 149 MAGAZINE ST.

coat of later shingles, 301 Brookline Street (1868) is a good Italianate design often used for corner lots. The pair of rounded windows over the entrance, the bracketed cornice, and the steep roof are typical characteristics.

Cambridgeport had a number of large Bracketed houses that followed the full four-room plan, but most have been demolished or drastically changed. At least three such houses stood at the south end of Magazine Street where the street passes over a low hill. Originally situated on large lots, two of the houses have been moved to side streets to permit subdivision for multiple-family dwellings. The old Reliance Kendall mansion of 1850 was moved in 1927 from 138 Magazine Street to 225 Chestnut Street; the George Sanborn mansion of 1852 was moved in 1906 from 149 Magazine Street to 7 Florence Street. Converted into a two-family house, the Kendall house retains little except a heavy bracketed front gable and entrance porch. The facade of the Sanborn house with its center gable, extraordinary bracketed windows, and later front porch is fortunately better preserved (Fig. 111). The third house, built in 1855, stands on its original site at 127 Magazine Street (Fig. 112). Although it has been remodeled with a Georgian Revival entrance and a Palladian window above (not to mention aluminum siding), these changes have been tasteful.

Another house of large scale, gloomily shrouded in dark asphalt shingles, stands at 39 William Street (1854). A remodeling has moved the entrance doors forward to the edge of what was once the front porch, but the curved struts or braces of the original porch are still visible. Generally, porches with arched struts are less well represented in Cambridgeport than in other sections of the city. A better and earlier example at 210 Harvard Street (1847; Fig. 113) uses bracing of an elliptical shape and leaves the spandrels open, giving the impression of a kind of bold wooden tracery. Often the center of the arch is marked by a key block that may be enhanced with a pendant, while the arches are customarily supported on bracketed imposts. The roofs of such porches may be carried on clusters of light posts connected by jigsaw tracery (as at 7 Upton Street), or the posts are sometimes bulky in cross section with the corners chamfered or beaded.

112. 127 MAGAZINE ST., 1855

113. 210 HARVARD ST., 1847

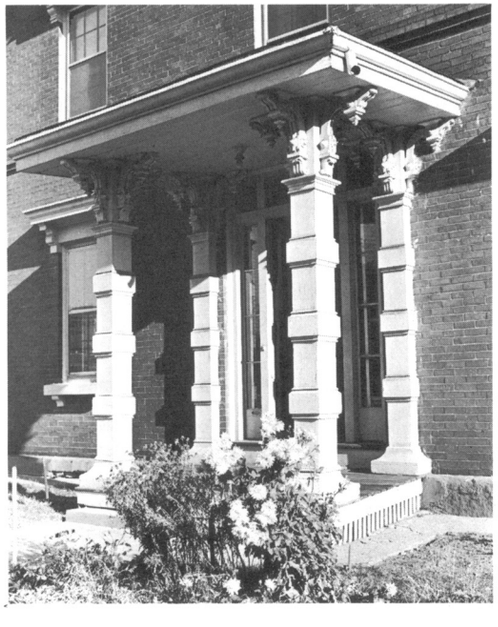
The only large Bracketed house in Cambridgeport that retains much of its original appearance and almost rural setting is 22 Putnam Avenue (Fig. 114). Although the house is confined to a conventional 100-by-63-foot lot on a busy street, its setting is enhanced by a charming old-fashioned garden seen behind a picket fence and by the fact that the buildings that stood on contiguous property to the north have been removed (portents, perhaps, of larger things to come).

22 Putnam Avenue was built in 1848 for a member of the Sands family, owners of an important North Cambridge brickyard – explaining the building's construction of brick. Not surprisingly for its date, the house retains many Greek Revival aspects – stolid mass, not-so-steep roof, and pedimented lintels on the upper-floor windows. Italianate, however, are the somewhat top-heavy proportions and the widely projecting eaves supported by pairs of complex brackets. Interspersed between these large brackets is a series of stumpy brackets that read almost as a row of dentil blocks.

At a somewhat smaller scale, the design of the large roof brackets is repeated on each face of the square posts and pilasters of the front porch (Fig. 115). The result is a lacy enframement of the entrance that contrasts with the building's otherwise heavy proportions. The facade ornamentation is strongly plastic; window caps and sills project bluntly, and two belt courses corbel out from the wall in two steps of brick. The deep brick fascia under the main cornice is not designed as an entablature; its depth is determined solely by the three-foot-high roof brackets.

An important Italianate feature not evident from the facade is the irregular plan of 22 Putnam Avenue. The L-shaped core allows two rooms on one side of the central hall and just one large room on the other. The gable above the rear ell is of the same size and elaboration as the main gable, while the roof of the long service wing thrusts out at one side at a distinctly lower level. Built on a corner, the house has front and side elevations faced with pressed brick, while common brick is employed on the rear. Similarly, there is no projecting corner pilaster on the left rear corner of the building or on the service wing.

114. 22 PUTNAM AVE., 1848



115. 22 PUTNAM AVE.
ENTRANCE PORCH

116. 204-206 NORFOLK ST., 1837 (LEFT). 198-200 NORFOLK ST., 1855 (RIGHT)

Changes taking place in Cambridgeport architecture during the 1850's are well chronicled in a series of double houses. The basic differences between the Greek Revival and Bracketed styles can be seen in adjacent houses at 204-206 and 198-200 Norfolk Street (1837 and 1855; Fig. 116). Both follow basically the same plan, but the latter illustrates the new mid-century pomposity. Although the box-like shape and simple ridge roof of the earlier example have been retained, there is now a considerable change in scale and proportions. Reduction in the number of facade windows coupled with an increase in their size shows another Italianate preference for monumental form. The same formula is followed at 43-45 Cottage Street (1855), where the entablature is almost Greek Revival in appearance but where the spreading roof, the wide-spaced windows capped with cornices, and the three ponderous brackets supporting the entrance canopy are unmistakably Italianate. (The triple window of the left house is a 20th-century addition.)

112-114 Prospect Street (1866; Fig. 117) attains a calm dignity because of its broad areas of wall between the windows and its long, sustained cornice line. Supported by a dentil course, the cornice is interrupted only by a central gable that rises almost to the height of the main ridge but does not break the plane of the facade. Triple-arched windows grouped within a single frame and capped by a robust cornice molding illustrate the search for variety in window treatment and give the design a monumental accent (Fig. 118). Paired entrances open on a porch supported by heavy posts into whose faces rounded panels have been countersunk.

117. 112-114 PROSPECT ST., 1866

118. 112 PROSPECT ST.
TRIPLE-ARCHED WINDOW

The geometric composition of the double house at 39-41 Magazine Street (1856) is more complicated (Fig. 119). A pavilion containing the paired entrance vestibules is carried above the main cornice and crowned by a gable that rises almost to the ridge of the main roof; both front and side elevations are provided with ample bay windows. Unfortunately, much of the building's original character was lost when it was shorn of its original trim. Examples of comparable massing stand at 30-32 Magazine Street, 150-152 Prospect Street, and 326-328 Broadway.

Pairing of Plan B instead of Plan C forms the basis for the delightful double house at 50-52 Magazine Street, corner of Perry Street (Fig. 120). Built in 1852 by Stephen Brooks and taxed at $2,800 per unit, the house stands midway between Greek Revival and Italianate. Robust pilasters and entablatures emphasize the geometry of the main block, a monumentality that is emphasized by the way in which the long narrow ell projects off to one side. The elliptical arches of the bay windows and the rounded attic window are Italianate, while the cast-iron balconies above the bays offer an unexpected and fanciful note. When the photograph in Fig. 120 was taken, the left house had lost its pilasters and original siding, and the entrance of the right unit had been changed; since then, further remodeling has heightened the difference between the two halves.

Bracketed row houses in Cambridgeport are scarce; 68-72 Norfolk Street (Fig. 121) is the only example. The telling characteristic – indeed, the only Italianate feature of this design – is the enormously projecting roof carried around all four sides of the block. Without such a projecting roof, 68-72 Norfolk Street could be a run-of-the-mill Greek Revival design with its brownstone lintels, recessed entrance vestibules, and pressed-brick exterior walls rising to a small dentil course just under the eaves. Indeed the difference between this Bracketed row of 1859 and a Greek Revival example of 1850-56 (183-189 Windsor Street, Fig. 90) or a Mansard design of 1861 (26-32 River Street, Fig. 134) are so superficial that one must be cautious of overemphasizing the matter of architectural style.

119. 39-41 MAGAZINE ST., 1856

120. 50-52 MAGAZINE ST., 1852

121. 68-72 NORFOLK ST., 1859

Mansard

In Cambridge, as in Boston, the architectural novelty of the years just before the Civil War was the Academic French style of Louis Napoleon's Second Empire. Up to this point in the United States, taste in architectural matters had been tied to British fashion and practice, but beginning in the early 1850's, American travelers became aware of Continental achievements. In particular they were impressed by the great boulevards being cut through the old quarters of Paris, and they came home with a taste for new, cosmopolitan elegance. The most notable evidence of this French influence in America is the layout and early buildings of the Back Bay district of Boston.

On the Continent the Academic French manner had placed great emphasis on order and on a correct use of Classical and Renaissance detail. It put ornament at corners, foundations, cornices, and openings in walls – points of special importance to the stability of a building. Termed architectonic, ornaments such as pilasters, cornices, window frames, and the like were used as if they were structural reinforcement, though in fact they were not necessary for support. When this sober French manner was copied in Cambridgeport, surprising changes took place. In translating into wood designs intended for stone, local carpenters developed some fanciful and unprecedented forms – particularly wooden brackets, the like of which France had never seen.

The element most seized upon was the mansard roof. Because of the prominence of this feature and because of the substantial differences between the Second Empire manner as built in France and in the United States, it is convenient to refer to Yankee vernacular work as the "Mansard style," even though a mansard, properly speaking, is a type of roof rather than a recognizable style of architecture.

Although Boston architects were just beginning to use the Mansard style in 1857, the mansard roof had appeared in Cambridge as early as 1854 in the work of dilettante architect Henry Greenough (*Mid Cambridge*, pp. 63-65). By 1861 mansards were in general use in all parts of Cambridge and Boston. Speculator builders lost no time in adopting the new roof design, which provided practical head room in the attic as well as a visible symbol of up-to-dateness. In vernacular buildings the Mansard style lingered into the 1880's, when it was finally assimilated into the Queen Anne manner.

Mansard mansions in Cambridgeport are difficult to describe, since only a few much-changed examples remain. Each is essentially a four-square, Plan A dwelling with center hall and subsidiary service wing. The principal difference from previous styles – though an important one in visual terms – is the presence of a mansard roof. Its surfaces on all four sides of the building emphasize rectangularity and form a substantial lid to the box-like mass. An important surviving example is the Henry Houghton mansion at 1000 Massachusetts Avenue, designed in 1856 by architect Calvin Ryder (Fig. 122). There, a mansard gable provides an element of variety without causing a break in the plane of the facade or destroying the roof's compositional unity.

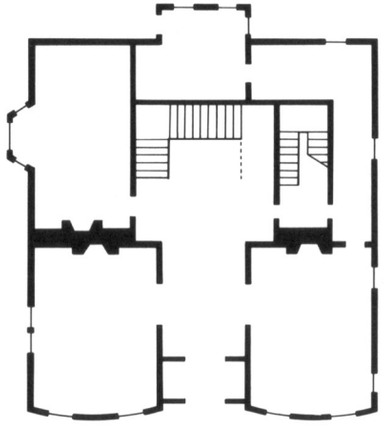
122. HOUGHTON HOUSE, 1000 MASSACHUSETTS AVE., 1856
CALVIN RYDER, ARCHITECT

160 Norfolk Street (Fig. 123) has a more complex geometric composition because of side pavilions placed well behind the front plane of the building. Maintaining the level of the principal cornice, these pavilions frame the main body of the building and enhance its centrality and symmetry. Built about 1873 as the rectory adjacent to St. Mary's Church, the building was moved to its present location in 1924, at which time the front corners were filled in with one-story additions.

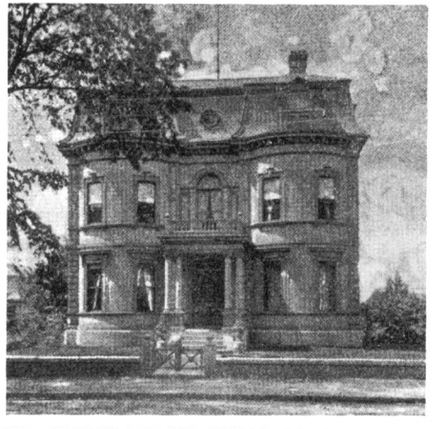
The Briggs house, which stood at 872 Massachusetts Avenue from 1865 until 1963, showed a slight relaxation in the traditional center-hall plan, although its bow-fronted facade was entirely symmetrical (Figs. 124-125). In place of the usual straight flight of stairs in a long central hall, the main stairway was situated in a rectangular shaft in the middle of the house and rose in three runs to the second floor. Instead of the traditional four main rooms per floor, one rear corner was given up to allow for the enlarged stair hall and a pantry connecting the front dining room with the kitchen in the rear wing. The second floor had four principal bedrooms (one over the kitchen), a good-sized sitting room above the front entrance, and a bath over the pantry. A large billiard room occupied the entire front half of the third floor.

Another large Mansard dwelling was the Asa P. Morse house at 81 Magazine Street (1861; demolished 1944), of which a set of fine interior photographs exists. A view of the library (Fig. 126) shows the heaviness of the moldings used for the plaster cornice and for the wooden door trim. Characteristic also is the white marble mantel with its arched coal grate.

123. 160 NORFOLK ST., 1873



124. BRIGGS HOUSE. PLAN



125. BRIGGS HOUSE, 872 MASSACHUSETTS AVE., 1865. DEMOLISHED 1963

126. MORSE HOUSE,
81 MAGAZINE ST., 1861
DEMOLISHED 1944.
LIBRARY

127. 197 HARVARD ST., 1867

128. 133 PINE ST., 1870

Not large or elaborate enough to be termed mansions are a number of dwellings that follow the four-room Plan A. Too altered to illustrate here, but undoubtedly good Mansard designs, were 66, 71, and 88 Magazine Street. A better example stands at 197 Harvard Street (1867; Fig. 127). Despite a shroud of modern composition shingles, it retains its original trim, but it is interesting to see how far this design has strayed from the disciplined academic quality of French architecture. The composition fuses the entrance porch (originally not glazed) to the two large bay windows on the first floor to form a continuous projection across the facade. Above the entrance is a second-story oriel window with a capricious roof, concave in profile and ingeniously designed to avoid the eave line of the main roof.

Cambridgeport lacks freestanding Mansard houses that follow Plan B (the one-room-deep, center-hall plan). Only one example, 133 Pine Street, is known, and it is placed with its narrow elevation to the street (Fig. 128). Most Mansard residences following Plan B were paired as double houses. Good examples are 36 Tremont Street (1883) and 108 Chestnut Street/1 Hastings Square (1871).

Much more numerous in Cambridgeport are side-hall plans (Plan C). This basic scheme can be found in all sizes and combinations – in single houses of one or more stories, in pairs, or in rows. Set on narrow single lots or compacted in groups, side-hall houses were well adapted to the urban condition that developed as the population grew. The two-story side-hall single house is Cambridgeport's most characteristic Mansard design. Augmented by the mansard roof, this type is so upright and vertical that it is best seen in a city environment with dwellings built at fairly close intervals; on larger lots, such a composition seems lonely and ill-proportioned.

Aside from the mansard roof, which is clearly the most important design feature, architectural decoration is restricted to points of structural importance. The entrance is often marked by a small porch supported by posts with beaded edges, though modest dwellings have nothing more than a bracketed hood. At

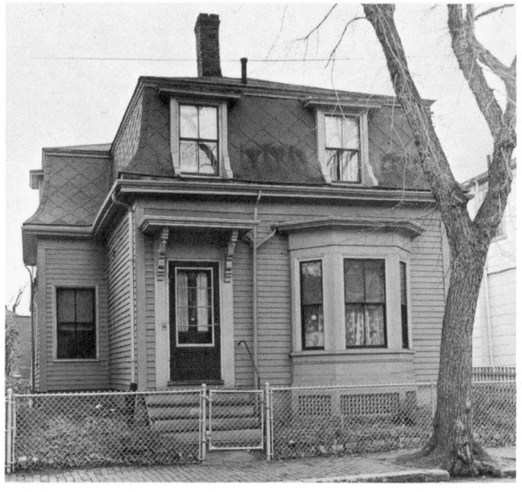
129. 11 PUTNAM AVE., 1869.
MOVED TO 37 PUTNAM AVE., 1970

130. 11 PUTNAM AVE. DETAIL

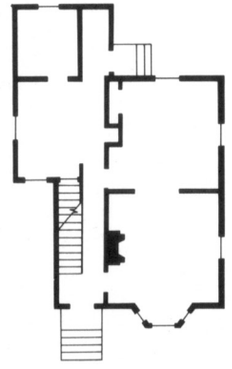
11 Putnam Avenue (1869; Fig. 129), the porch posts are connected by curved wooden struts or braces that meet at a central key block. This example is quite simple, but sometimes the key block is serrated or reeded, with turned pendants appended to it. As the curved-strut porch is also found on Italianate houses, it cannot be considered a specifically Mansard feature.

Entrance doors are generally double, with a transom above; the glass in the doors' upper panels often contains an etched design. Window frames are capped by a cornice molding resting on brackets, though in more sophisticated work complete pediments may crown the window. Enframements for second-story windows are usually simpler, sometimes with nothing more than a heavy wooden drip molding. Such a detail illustrates the hit-or-miss eclecticism that prevailed at the time, since drip moldings essentially are a Medieval rather than Classical feature. They had entered the American carpenter's repertoire through the Tudor cottage, but this historical association did not keep naive builders from employing so useful a decorative element in other contexts. A satisfactory drip molding could be achieved, as at 11 Putnam Avenue (Fig. 130), by the simple means of carrying a robust molding across the top of the window and part way down each side, with additional short pieces nailed across the bottom to form an inverted T.

The main cornice at 11 Putnam Avenue is supported on simple paired brackets; the windows in the mansard roof have triangular pediments. At the base of several of these windows, traces remain of simple scrolls cut out of two-inch boards to recall the more substantial stone volutes of European prototypes.



131. 32 KELLY RD., 1870



132. 32 KELLY RD. PLAN

The Mansard cottage is a charming variation of the side-hall plan. Largely built during the early 1870's in areas then on the outskirts of Cambridgeport, good examples are found north of Hampshire Street, along the district's southwestern boundary on Putnam Avenue, and on Kelly Road, Chalk and Fairmont Streets, and nearby stretches of Pleasant Street.

32 Kelly Road (1870; Fig. 131) looks smaller than it is. Because the second story is under the mansard roof, one thinks of the dwelling as having only one story, though in reality it contains seven comfortable rooms. Taxed at $2,500 when built, the house had no bath, but a water closet was situated in the basement. The exterior is simple but dignified, with a bracketed hood above the entrance, regular windows topped by cornice moldings, and a main cornice without brackets. The facade is dominated by a simple octagonal bay window that is really an oriel, since it is cantilevered beyond the brick foundation. Capped by simple moldings, the dormer windows are slightly recessed and are framed by heavy wooden jambs that flare out to follow the contour of the roof.

Typically for a Mansard cottage, the plan of 32 Kelly Road is L-shaped (Fig. 132). Just behind the stair hall a room projects out at one side to provide sufficient width for a kitchen. This arrangement creates a more complicated geometric pattern in the mansard roof than some builders liked. In ordinary two-story houses the rear ell is low enough to avoid conflict with the main roof, with the result that the mansard generally has a clear, rectangular simplicity.

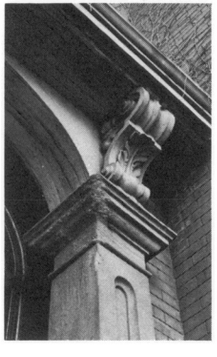
Built singly and in pairs in the mid-1870's, the groups of Mansard cottages on Windsor and Plymouth Streets illustrate such late Mansard features as the overhanging roof and recessed dormer window. A sequence of four structures on Windsor Street (Fig. 133) also shows how one style can fuse into another in almost imperceptible steps and thus how architectural style in vernacular

133. 370-396 WINDSOR STREET. RIGHT TO LEFT: 370-372 WINDSOR, 1875; 376-378 WINDSOR, 1874; 384-386 WINDSOR, 1875; 390-396 WINDSOR, 1890

building can be very illusive. 370-372 Windsor Street (1875) is a regular one-story double Mansard cottage; its Bracketed entrance and cornice can be found on many other streets in Cambridgeport. Built in 1874, the adjacent house at 376-378 is similar in appearance except that the mansard roof is employed only on the facade; side and rear walls are carried straight up for two stories to the low hip roof. This house has been placed on a high basement that contains additional rooms, but the facade reads much the same as its smaller neighbor. The third step, 384-386 Windsor (1875), has a mass very similar to the last, except that all traces of the mansard roof have disappeared. Our principal clue to stylistic classification is therefore gone, even though the pitch of the remaining hip roof is the same as on the upper part of earlier mansards. One would probably term this house Bracketed in style because of the decorative brackets used for the main cornice, but these are identical with the upper bay-window brackets used next door at 376-378. The last stage of the mutation is represented by 390-396 Windsor, a double two-family and a run-of-the-mill Queen Anne design. Its later date (1890) is attested by fan-shaped brackets and four front doors, but its mass and fenestration are basically similar to its neighbors'.

Mansard row houses are plentiful in Cambridgeport, as they are in other suburban areas within commuting distance of downtown Boston. Interspersed among single dwellings, comparable rows are found in Roxbury, South Boston, Charlestown, and East Cambridge, but few of these suburban structures have the size or decorative profusion of row houses in Boston itself.

134. 26-32 RIVER ST., 1860



135. DOORWAY DETAIL

136. WINDOW DETAIL

Typical of suburban row housing is the group of four two-story houses at 26-32 River Street (Fig. 134). Valued at $14,000 per unit when built in 1860 and faced with pressed brick trimmed with brownstone, this design is comparable to some contemporary work in the South End of Boston. Unusual, however, is the ingenious manner in which the facades are staggered to fit the irregular lot, permitting windows in the side walls of the front rooms. In scale and detail, though not in siting, the River Street group is similar to a row at 83-95 Third Street in East Cambridge, built 1861.

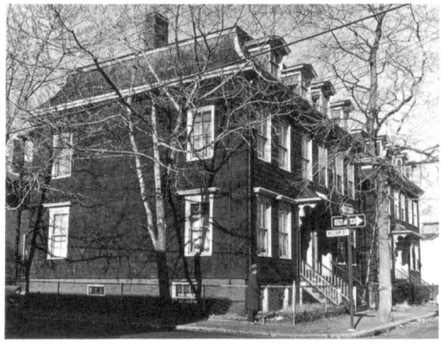
Exceptional for Cambridgeport is the group of five houses at 942-950 Massachusetts Avenue (1873; Fig. 137). Instead of being lined up in a repeating fashion, these facades are organized around a central design element. Although the interior of the middle house is no different from that of its neighbors, its facade is pushed slightly forward to create an axial pavilion capped with a higher mansard roof. A pavilion treatment also occurs on the two end bays. More sophisticated than a mere repetition or pairing of facades, such groupings were common in houses designed by professional architects in the Back Bay.

137. 942-950 MASSACHUSETTS AVE., 1873

138. 30-38 PEARL ST., 1874

139. 40-48 PEARL ST., 1875

The block of Pearl Street between Green and Franklin shows how imposing a street lined with mansarded row houses can be. Numbers 30 to 38 Pearl (Fig. 138), built in 1874, make interesting use of brick in their ornamental banding, while the wooden facades of 40-48 Pearl (1875; Fig. 139) are designed to recall ashlar masonry.



140. 77-79 AND 83-85 PEARL ST., 1861

Double Mansard houses with entrances facing the street can be quite impressive. When built close together, such houses constitute a more imposing streetscape than do single houses – perhaps because the broad facades with regular fenestration appear more monumental. The paired dwellings at 77-79 and 83-85 Pearl Street (1861) are typical (Fig. 140). There is noticeably less variety in the way Mansard units were combined than was the case in the Greek Revival or Bracketed styles. Entrances are invariably paired at the center of the facade rather than being placed at the outside corners, and the plane of the facade is seldom interrupted. Other representative double Mansards are 56-58 Columbia Street (1858) and 201-203 Harvard Street (1867).

A group of four dwellings between 12 and 24 Watson Street was erected in the years 1865-1869 by speculative builders Robert Carson and Albert Rollins (Fig. 141). Though lacking architectural distinction, these houses are interesting because they demonstrate how a builder could select decorative details from a repertoire of stock forms and impose them upon standard house types to provide variety. The Watson Street group consists of three double houses and one single. One double has a gable roof; the others have mansards. One of the mansarded doubles is two stories high, the other, one story. Although these houses are dissimilar in overall appearance, their detailing is identical; the same brackets support the entrance hoods, and newel posts and stair details within are exactly alike.

141. 12-24 WATSON ST., 1865-1869. ROBERT CARSON AND ALBERT ROLLINS, BUILDERS

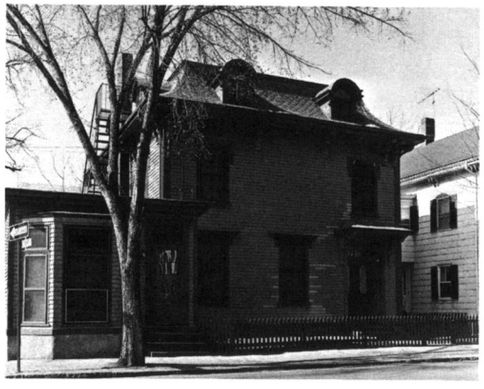
Mansard building in Cambridgeport follows a broad chronological development, with changes evident in three areas – roof design, exterior detailing, and geometric composition. Although the mansard is basically a roof of two slopes on all four faces of a building, there are several variations of this form, which differ in date. The first mansard roofs in Cambridge had a relatively low slope, were almost flat on top, and might be described as truncated hip roofs. Singled out in the Mid Cambridge report (page 65) as the work of Henry Greenough between 1854 and 1856, roofs of this kind are absent from Cambridgeport. By the late 1850's, however, many mansards were being built. The pitch of the lower roof section was steeper, and the upper slope usually had enough inclination to be seen from the street. The profile of the lower roof could be concave or straight – a matter of individual preference, though the concave roof tends to be slightly earlier (Fig. 122). Most early mansards begin their rise from a point just above the corner of the building; only the cornice, which contains the gutter, projects beyond the wall surface.

After 1873 the lower slope of the mansard roof was modified to eliminate loss of headroom within the attic. One awkward solution gave the "roof" a completely vertical slope that flared out at the bottom to appear like a mansard; a second solution cantilevered the lower slope well beyond the surface of the wall below. Such unorthodox mansards are found only in cottages and tenements where full-size rooms were at a premium; they were never popular with style-conscious builders. In late roofs, too, the upper slope increases in pitch, becoming in effect a low hip (Fig. 146).

A minor distinction concerns the molding that occurs at the break between the mansard's upper and lower slopes. In early examples this division is simple and utilitarian – usually nothing more than a cyma molding painted slate color and just large enough to throw the drainage of the upper roof beyond the topmost slate of the lower surface. In the 1870's, however, this dividing molding becomes more important. Forgetting structural purpose and historical precedent, vernacular builders enlarged its decorative importance until it became a kind of second cornice, sometimes even provided with brackets. Also in the 70's, the lower mansard slope is sometimes framed with elaborate moldings and the corner edged with a rope molding, but such ostentatious treatments are lacking in Cambridgeport. Lower slopes of mansard roofs are always covered with slate. Early slate work is simple or is laid in an imbricated pattern (Fig. 134), but later slate can be set in bands or geometric patterns (Fig. 144), often emphasized by contrasting colors.

Dormer window design also changed through the decades. Arched and segmental-arched dormers tend to be somewhat earlier than those capped by pediments, which appear in the 1860's. In the 70's the dormer develops more complex silhouettes (Fig. 139), especially around the jambs. Another tendency of the 70's was to recess the dormer within the slope of the roof (Fig. 144). Shed dormers that continue the slope of the upper roof generally indicate a still later date (Fig. 146).

The detailing of ornamental wood and masonry members also helps to date Mansard designs. Early work between 1855 and 1865 is of two types. The nearer the designer was to the accepted Academic French manner, the greater the



142. 24 MT. AUBURN ST., 1862

likelihood of an early date. A pure academic design abjures brackets, supporting the cornice by means of modillions, a dentil course, or a simple cyma molding. Although employed by Greenough in Mid Cambridge and by professional architects in Boston in these years, such restraint was rare among carpenter-builders; they perferred to load their design with ponderous brackets and free-wheeling, easily made decorations similar to those found on pedestrian Italianate-Bracketed buildings. A good example of this second approach is 24 Mt. Auburn Street (1862; Fig. 142), where the huge paired brackets would be proper on an Italianate house. These brackets are animated by knobs and drops that give the design a full-bodied, sculptural feeling.

Smaller brackets like those at 11 Putnam Avenue (Fig. 130) may date any time before 1873. They can be simple in profile or have turned drops, and their center can be solid or open, but their sides will be smooth, without jigsaw work. During the mid-70's, however, bracket design became particularly ornate through the use of jigsaw and lathe. Excellent examples are found at 146 Columbia Street (1874), 46 Pleasant Street (1874), and 48 Magazine Street (1875; Fig 143). All use laminated brackets composed of two outer boards (about an inch thick) and a two- or three-inch core. Before being glued together, the thin outer boards were cut with a jigsaw in fanciful linear designs, and the core was shaped with the same profile or given a reeded texture. Other surfaces of the laminated bracket could be enlivened with prefabricated bosses or drops glued in place. When completed, such a bracket looks sculptural, even though no hand carving is involved. The decoration is composed entirely of elements fabricated by machine, a procedure that costs considerably less than traditional carving and explains both the extreme elaborateness of the designs and their popularity. Other elements of decoration such as key blocks, window frames, or even front doors are also fit subjects for the jigsaw carpenter, who could contrive fantastically elaborate designs from bits and pieces of precut wood.

A comparable change in spirit and technique can be seen in masonry building of the period, a change illustrated by two groups of row houses. The dwellings at 26-32 River Street, built in 1860 and mentioned before (Fig. 134), retain a Bracketed opulence in their detailing, although for economy the hoods and consoles over the entrances (Fig. 135) were made of wood, which was painted

143. 48 MAGAZINE ST., 1875

brown and dusted with sand to give the appearance of brownstone. The window caps, on the other hand, are made of stone and have a robust, full-bodied quality, with bas-relief decoration that had to be hand cut (Fig. 136). Allston Terrace at 13-21 Magazine Street (Fig. 144-145) was built in 1871, after the wages of stone-cutters had skyrocketed in the wake of the Civil War; thus its decoration is very different. Where stone is used, a linear pattern is grouted into a block already surfaced by a stone plane. This mechanical decoration saved enormously on hand labor cost. Now also, brick is used to achieve ornamental effects – a series of cross-shaped panels sunk into the belt course, bricks set at angles with the plane of the wall to create a flickering play of light and shadow, or a main cornice formed by corbelling rows of brick. This exploitation of brick ornamentation, so popular in the 1870's and so distinctive, is sometimes called the Panel Brick style.

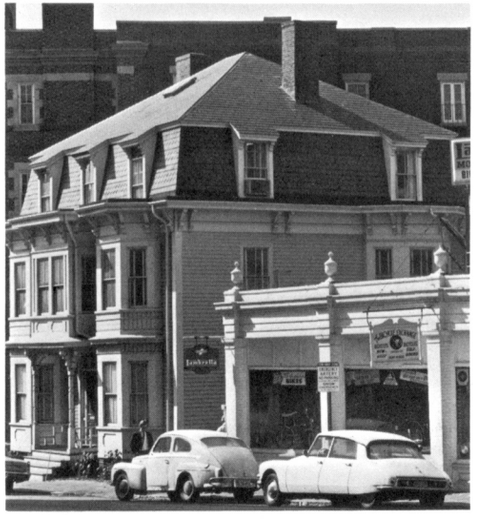
144. 13-21 MAGAZINE ST., 1871

145. 13-21 MAGAZINE ST. DETAILS

Finally, the geometric clarity of a Mansard house offers a good clue -- perhaps the most reliable – for dating. Houses of the late 1850's and early 1860's have a compact and regular mass, with the mansard roof forming a heavy lid to the composition. Mansard buildings show less tendency than Italianate designs toward towered or asymmetrical schemes. Service wings are usually kept low enough to avoid conflict with the blocklike mass of the design. At the same time, the exterior surfaces of the building are charged with a heavy component of architectonic decoration – window frames, entrance porches, an entablature, perhaps corner quoins. But the compact regularity of the mass – its basic geometry – is never challenged by this applied decoration. Stronger at the beginning, this tendency continues through the 1860's (Fig. 129).

In the course of time, the rigid geometry of the mass begins to relax. Slowly at first, the building mass is augmented by appendages like bay windows that eventually extend through two stories into the mansard roof (Fig. 143). By the middle 70's the geometric composition becomes quite active. Not only is the plane of the facade interrupted by projecting porches and bay windows, but the silhouette is broken into active, competing forms.

9 Bow Street (1884; Fig. 146) is an instructive example of later Mansard design. The center entrance of this Plan A house is flanked by bay windows that are octagonal in plan and two stories high. Above the open entrance porch is another bay window. These three projections impinge on each other, leaving little of the front wall of the house exposed to act as the plane of reference on which the appendages are hung. In effect, the facade consists of a series of narrow vertical planes that meet each other at sharp angles. The facade is restless and cramped, as though disrupted from within by some explosive energy. The silhouette of the building also lacks repose. When observed in a foreshortened manner from the street, the traditionally strong horizontal line of the main cornice is fractured by the back-and-forth movement of the facade and by the manner in which the upper slope of the mansard is carried on to the shed dormers. Less drastic, though illustrating the same restlessness, are the wall surfaces and porch members. The spandrels of the bay windows are articulated by slatlike panels that are raised slightly and shaped like inverted pickets. The uprights of the entrance porch, instead of being straight posts, are turned and contorted, and the balustrades contain an irregular openwork pattern.



146. 9 BOW ST., 1884

Thus the spirit of Mansard decoration shifted from the harmonious and dignified work of the late 50's to dynamic and exhibitionistic work of the 70's, from simple rectitude to exuberant surfeit. It is as though the academically conceived formula had burst apart, as though the old and staid forms were no longer able to contain the throbbing vitality of American life. The restless, dynamic mood of 9 Bow Street suggests that we are on the verge of a new movement – the Queen Anne. The energy is there, and indeed so are a few elements of the new vocabulary.

Queen Anne

The three decades between 1875 and 1905 were dominated by a style of architecture known as Queen Anne. In Cambridgeport the movement came as a fitting climax to 19th-century architectural development. Falling chronologically at the end of the century, the style exceeded earlier movements in the quantity of construction and in the variety and types of buildings erected. Equally important, it marked the culmination of architectural tendencies that had been stirring for half a century.

The Queen Anne brought greater freedom in plan, massing, and fenestration, coupled with a desire for a more active and individualistic architectural statement. There was a marked increase in ornamentation, made possible at no increase in cost by the use of machines. At the same time, the movement is different from earlier ones in that the wages of artisans and laborers had increased sharply, the scarcity of land had become noticeable in some sections of the city, and the architect was faced with an even larger selection of natural or manufactured building products. If the Queen Anne was the culmination of the 19th century, it also anticipated many practices and problems of the 20th.

The Queen Anne was an English architectural concept imported by Americans. It made its first appearance in this country in the mid-1870's, and by the 1880's it had entered the mainstream of American building. Here it remained a recognizable and vital force as late as 1905, though during the late 1890's and early 1900's it was gradually transformed into the Colonial Revival. In England, Queen Anne design had largely been constructed of masonry, and the first Queen Anne structures in this country were little more than competent reflections of British work. Not until Queen Anne ideas were translated into wood for suburban building did American architects begin to achieve something significantly original. In the course of the first decade, however, the movement proved itself to be the fitting vehicle to express the several tendencies toward which American architecture had been moving for fifty years.

Because there is considerable chronological development in Queen Anne architecture over its thirty-year lifespan and because there is so much variation in appearance, especially between urban and suburban building, it might be preferable to regard the Queen Anne as an attitude toward architecture rather than as a fixed architectural style.

Key to the movement is its freedom of plan and massing. This informality and irregularity resulted from a process of loosening up begun in the 1840's and 1850's, when the rigid rectangular shapes of buildings were broken first by service wings and then by larger projections that expressed variations in room arrangement within. The boxlike mass was further fractured by the addition of bay windows and porches and by gables intersecting with the main axis of the roof. In Queen Anne work, functional variations in plan and geometric composition were intentionally exaggerated to make buildings irregular and picturesque. Designers also attempted to find new and personal solutions, to outdo their rivals in originality and fancy. Such a self-conscious approach to design is quite different from the unconscious adherence to tradition of Federal builders or the self-disciplined attitude of designers who sought to master the Academic French manner.

As an example of this new freedom in design, one can compare changes in window treatment during the half-century following the Greek Revival. In Greek Revival houses, windows were fairly uniform. In principal rooms they were occasionally made long enough to reach the floor, but all windows were divided into panes of about the same size, imparting a consistency of scale and appearance (Fig. 147A). In Italianate-Bracketed work of the 50's, changes in fenestration began to appear. Glass size was increased so that four panes rather than twelve customarily filled a window – two each in upper and lower sash (Fig. 147B). Window frames became heavier and more varied in design, with roundheaded openings in the gable and sometimes elsewhere; occasionally windows were grouped in twos and threes, the frame capped by a cornice supported by brackets. But the proportions of openings remained fairly constant. Variations in window design were used only as an accent, and most windows in a given building were similar in appearance.

147A. GREEK REVIVAL WINDOWS
(71-73 NORFOLK ST., 1844)

147B. BRACKETED WINDOWS
(49 AUSTIN ST., 1863)

147C. QUEEN ANNE WINDOWS (GRACE METHODIST CHURCH, 1886)

In the Queen Anne period, window design became more complex. Proportions, groupings, and window levels in Queen Anne houses are unpredictable, as windows of different size and shape pop out anywhere. Some project as bays or oriels, others cower under balconies or porches; tower windows frequently use curved glass to conform to curving wall surfaces. Glass sizes vary from large sheets of plate glass to traditional two-over-two or six-over-six sizes to sash with picturesque compositions of large and small panes. One popular stock window groups a border of small square panes (often filled with colored glass) around a large pane of clear glass (Fig. 147C). Window enframements are varied, and elevations frequently contain several varieties of windows.

Equal possibilities existed for variety and originality in the use of materials. Because transportation had become easier, builders were no longer restricted to local materials, and many combinations became possible – brick and stone (several colors and varieties of each), slate, tile, metal, glass, and timber. Use of fine materials was prodigal. The Queen Anne architect at his best was sensitive to the unique properties of each material and could skillfully adapt his design or detailing to fit shingles or brick or rough stone. This sensitivity contrasts with attitudes of the 1840's and 1850's, when materials were regarded merely as the stuff out of which a predetermined design was created and when wood construction often attempted to look like masonry. On the other hand, Queen Anne designers were sometimes so preoccupied with craftsmanship that they could forget about the material in the process of achieving copious decoration. Timber posts could be so turned, gouged out, and glued onto that they lost all semblance of wood; sheets of metal were stamped to look like stone relief; and wood carving was simulated in molded putty.

Since the fullest expression of American Queen Anne concepts is found in large suburban and country houses of the 1880's, the movement in Cambridge is better studied on Avon Hill or in Hubbard Park than in Cambridgeport. Nevertheless, the buildings discussed in this section provide a catalogue of most aspects of the Queen Anne, and they illustrate how strongly the movement affected vernacular architecture.

148. 152 MAGAZINE ST., 1875

149. 152 MAGAZINE ST. DETAIL

150. 14 TREMONT ST., 1885

151. 105 HENRY ST., 1884

Several Cambridgeport houses built in the late 1870's and in the 80's illustrate the transitional phase of the Queen Anne. Although certain aspects of their plan, massing, and detail look backward to the Bracketed vernacular of the 50's, the tendency to burst out of the rigid, boxlike mass with bays and ells and a more plastic type of ornamentation is purely Queen Anne. Good examples of this transitional stage are 152 Magazine Street (1875; Fig. 148) and 14 Tremont Street (1885; Fig. 150). The rectangular core of both buildings is augmented by side wings – a polygonal bay window on one house and a side service wing on the other. Though these projections carry into the second story, they are not capped by gables that would interrupt the simple ridge roof; instead, the slope of the main roof is continued to cover them. The roof slope in both houses is noticeably steeper than in Bracketed designs, and eave lines are placed higher above the tops of the second-story windows. The proportions of such Queen Anne designs are more vertical than before, and the composition becomes more active as individual parts assume independent interest.

On the Magazine Street house the new aggressive manner is seen in the small gables that rise over the face of the bay window and front porch (Fig. 149), in the hoods that overhang the windows (these hoods have been removed except on the north side), in the division of the exterior wall surfaces into contrasting textures (clapboards on the first two stories and two types of vertical siding in the gables), and in the curious sawtooth frieze of wood over the entrance porch and bay window and under the main gable. Unique in design, this frieze is the most readily identified Queen Anne detail on the facade. Cut with jigsaw and bore to form a running design, the frieze's outer face ingeniously overhangs the wall surface by an inch, creating a crisp, emphatic shadow that interrupts still more the surface continuity of the facade. The underside of the eaves of the entrance porch has been incised with jigsaw design. Lacelike and delicate, this design is unrelated to the coarse angular ornamentation employed elsewhere in the building.

Although later in date, the Tremont Street house is more conservative in some details. The entrance porch with its heavy keyblock and the bracket-supported cornices over the windows can be duplicated in Mansard houses. Nevertheless, the building's upthrusting proportions and steep roof and especially the fan-shaped brackets are Queen Anne. Two brackets are placed at each corner of the gable to support projecting roof plates, while handsome openwork brackets support the shed roof above the bay window on the side elevation. The window of the main gable adds a picturesque detail, and the bargeboards in the gable are enlivened with a panel design built up with bits of molding.

Similar transitional side-hall houses are found at 52 Chestnut Street (1885), 321 Pearl Street (1887), and 106 Henry Street (1884; Fig. 151). Here the side wings are short enough to be covered by a continuation of the main roof slope, and the front porch is carried around a corner to one side of the house. The porch posts, typically Queen Anne, are turned on a lathe and have intricate profiles. Also typical is the spindle frieze – a series of open panels containing turned spindles.

A different branch of the Queen Anne movement derives, though remotely, from Swiss chalets. A skeletal system of wooden posts and beams recalls the importance of structural members used to frame walls and gables. Reduced to a form of decoration and employed in the vernacular, this system – called the Stick Style – is seen in several Cambridgeport edifices. The articulated facade at 60-62 Prospect Street (1882; Fig. 152), for example, separates the wall surface into framing members (or what appear to be framing members) and a non-bearing sheathing of clapboards and shingles. That this articulation is not really structural is indicated by the fact that the vertical elements of the system are lacking on the side and rear walls. The purpose of the articulation is simply to lend animation and textural contrast to the wall surface.

Another Stick Style feature is elaborate bridging, such as the exposed trusses in the gables of 90-92 Pleasant Street (1881; Fig. 153) or 17 Kelly Road. The roof of the Pleasant Street house is two full stories in height, not for practical reasons (since there are no windows in the fourth-story attic) but as a visual device to provide a background for the openwork of the truss.

152. 60-62 PROSPECT ST., 1882

153. 90-92 PLEASANT ST., 1881

156. 125 MAGAZINE ST., 1881

157. 195 ERIE ST., 1884

Beginning with such trusses, Queen Anne designers added new touches of their own. Spaces between truss members were sometimes filled with sheets of wood pierced with jigsaw designs. This feature is seen in two delightful houses at 105 and 111 Chestnut Street (1875; Fig. 154). Reminiscent of chalets are the broad overhanging roofs and the prominence of the exposed rafters with their notched and chamfered edges. The twin houses are also remarkable for their entrance porches constructed of six-inch members (Fig. 155). A hybrid of tracery and bridging, this timber work is one of the most original details in Cambridgeport. The involved plan of these houses – an asymmetrical cross that requires an intricate intersecting-gable roof – illustrates the Queen Anne penchant for complexity.

Still another type of exposed framing, reminiscent of Medieval half-timber work, exploits the decorative possibilities of timber bracing. At 125 Magazine Street (1881; Fig. 156), one of the few examples in Cambridgeport, a simple hip roof is augmented on each side by a gable in which half-timber work contrasts with a coarse stucco fill. The design and framing of these gables contrast almost unpleasantly with the boxlike mass and plain clapboard surfaces of the lower floors, although the effect must have been more agreeable before the entrance was remodeled. A pedestrian example of a Queen Anne half-timber gable is found at 460 Franklin Street, a house moved to its present location in 1964 from 5 Putnam Avenue.

154. 105 AND 111 CHESTNUT ST., 1875

155. 111 CHESTNUT ST. ENTRANCE PORCH

Three houses in the Hastings Square neighborhood represent fullblown versions of the Queen Anne manner in its middle phase. Built within a few years of each other and each typical in its own way, these houses illustrate the difficulty of defining the Queen Anne style narrowly. The first of the three, 195 Erie Street (Fig. 157), was built in 1884 for Edmund Reardon, whose soap factory was just a few blocks away. Though the mass of this house at first appears complicated, a careful look reveals it as nothing more than a rectangular block capped by a hip roof. The basic form is augmented on each side by a gable – a common Queen Anne solution – but because the gables are of different sizes and are placed off center, the eye does not readily comprehend the shape. One slope of the main hip roof extends down in a gentle curve over the front porch; out of this sweeping roof rises a large gable, the major element of the facade composition. Supporting the gable are two large brackets, fluid in outline and gracefully carved; the gable in turn is filled with half-timber decoration and with panels of heavy spiral designs. Another striking feature is the front porch with its heavy timber arches, their open spandrels filled with curious shapes that look like skewered cranberries. A cradled wooden balustrade surrounds the porch and front steps. A second Reardon house on Erie Street (number 170, built 1885) has a similar mass, placement of front porch, and disposition of ornamental detail, while nearby at 120 Henry Street is a related design of the same year, more modest in scale.

The second major example, equally deserving of the term Queen Anne yet quite different in appearance, is 82 Henry Street (1886; Fig. 158). Despite asbestos siding that hides the original wood surfaces (probably patterned shingles), it is worthy of note for its corner tower. Although the tower and conical roof

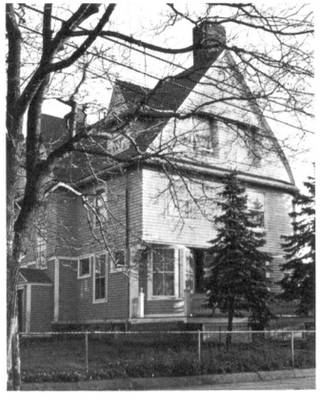
158. 82 HENRY ST., 1886

159. 302 BROOKLINE ST., 1887.
RAND & TAYLOR, ARCHITECTS

compete with the main mass of the house, they do not obscure it. The designer seems to have done everything possible to disguise the basically simple shape of the house and to keep it from appearing as a rectangular box covered with a hip roof. Each face has a gable, but the gables are dissimilar in size and height and are not even symmetrical in placement. One gable covers a polygonal bay window on the Brookline Street elevation; another – supported by an oriel window – hangs out beyond the face of the building. The soaring clustered chimney stack is another Queen Anne feature, but its position does not clarify the mass or plan of the house. The large front porch pushes out beyond the corner of the composition and contributes still further to a sense of restlessness. Somewhat similar in detailing and equally spoiled by artificial siding is 39 Austin Street (1881).

The third version of Queen Anne stands at 302 Brookline Street (Fig. 159). Representing what is popularly called the Shingle Style, this 1887 house by Rand and Taylor is informal in composition and makes extensive use of shingles laid in a variety of patterns. Its long rectangular shape (determined by the lot) is disguised by a gabled side ell as large as the main block of the house. The face of the ell is three stories high, has four sides, and is punctuated by windows of different sizes. On a front corner a one-story bay is placed at a 45-degree angle and is roofed with two hips. Two decorative bands, created by a slightly flaring projection of the shingle wall above a plain fascia, carry around the house at window-head level and cast a shadow on the wall below. For textural variety, the walls are covered with shingles laid in four different patterns.

Later developments of the Shingle Style are seen at 75 Henry Street (Figs. 160-161) and 65 Chestnut Street (Fig. 162). Houses such as these represent a clearer awareness of the aesthetic possibilities of shingle construction than those just discussed. Hartwell and Richardson were the architects of 75 Henry Street (1892), a complex and not entirely satisfactory design that consists of a number of disparate elements – steep ridge roof, overhanging second story, two facade towers, front porch, and side and rear ells. The facade misses symmetry by just enough to be disconcerting; nothing is quite anchored down. One of the tower roofs is conical, the other octagonal, and the intersection of these shapes with



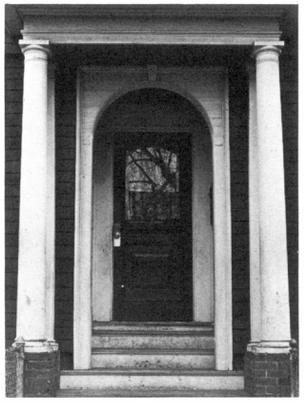
160-161. 75 HENRY ST., 1892. HARTWELL & RICHARDSON, ARCHITECTS

the changing slopes of the main roof is confusing, though ingenious. A broad segmental arch connects the towers and supports the lower slope of the main roof yet fails to establish the plane of the facade, which remains indistinct and undetermined. The design is unified, however, by the way in which this complex assemblage of shapes is bound together by the taut skin of shingles that envelops the exterior walls. This covering stretches around curves, overhangs, setbacks, and bays and accommodates frequent changes in the plane of the facade. A smaller example at 112 Henry Street (1887) contains a round tower and an overhanging gable.

Lacking towered forms but still rambling in appearance is the attractive house at 65 Chestnut Street, designed in 1894 by J. A. Hasty. The composition is so informal and the shingle sheathing so adaptable that the outside walls of the dwelling are able to expand or contract as interior function dictates. The house is generous in size, though it looks unassuming because the full second story is disguised under a gambrel roof. A broad facade gable is supported by acanthus consoles of the sort that Queen Anne designers so much admired, and there is a

162. 65 CHESTNUT ST., 1894.
J. A. HASTY, ARCHITECT

163. 184 MAGAZINE ST., 1911.
J. MARSDEN PARKS, ARCHITECT



164. 88 COLUMBIA ST., 1915.
ENTRANCE

fanciful Palladian window in the attic. Picturesque stair windows on the side elevation have been obscured by later additions to the lower story, and the original entrance has unfortunately been changed.

The arresting structure at 184 Magazine Street (1911; Fig. 163), another example of the late Queen Anne Shingle Style, is one of the most unusual three-deckers in Cambridge. Although the layout of rooms on each floor is substantially the same, the stereotyped three-decker appearance has been avoided. The top story is treated as a gambrel, the fenestration is varied slightly, and a porch is provided for the first level – all contributing to a sense of variety. Despite the multiplicity of openings, the design avoids chaos; architectural trim that would emphasize window differences is suppressed, and the facade is recessed within the protective hollow of the hovering gambrel roof.

Shingled surface walls continued to be used even after the picturesque Queen Anne manner had faded in popularity. This continued use is explained in part by the adaptability and economy of shingles. A group of two-family houses built in 1895 on Chestnut Street below Magazine shows the Queen Anne manner changing into Colonial Revival dress but still using shingles (Fig. 39). Still later, three-deckers often employed shingles in combination with minimum quantities of Classical ornamentation (Fig. 50). On such buildings the relatively large areas of textured dark shingled walls form an effective background against which are placed a few bold architectural forms painted white. The well-scaled entrance of 88 Columbia Street (1915; Fig. 164) consists of Tuscan columns and an enframed arch opening into a recessed vestibule. The only other parts of the facade to receive ornamentation are the main cornice and a string course.

The last phase of the Queen Anne movement unfolded in the middle and late 90's. It combines Colonial Revival details with Queen Anne freedom of plan and design, forming a transitional link to the full Georgian Revival, which dominated American domestic building for the first third of the present century. Although Cambridgeport has no Colonial Revival houses comparable to those on Brattle Street, a few double houses and three-deckers should be mentioned.

165. 183-185 CHESTNUT ST., 1893. W. E. CLARK, ARCHITECT

A splendid double house was designed at 183-185 Chestnut Street in 1893 by W. E. Clark (Fig. 165). Still Queen Anne is the restless massing – an overhanging second story supported by corner consoles, a projecting entrance porch that repeats the shape of two bay windows, and a center pavilion that rises above the main cornice while overhanging the entrances in a mysterious way. The detailing is full of originality and surprise yet is unmistakably patterned after Classical forms. The inventive Palladian window has a blank center section because this is a double house. The front porch is supported on columns of good Classical detail, but the shape of the porch is most unclassical. Pilasters enframe the middle pavilion, but they in turn are supported by nothing. The major cornice is so elaborate that one almost forgets to notice that the roof is flat.

A simpler but equally characteristic design appears at 141-143 and 145-147 Magazine Street (1897; Figs. 166-167). Designed by Eugene Harrington, these two buildings use Georgian detail with somewhat more restraint than the Chestnut Street dwelling. There is still the same informal composition, with the second story overhanging an elliptical bay, but the ornamentation is more sober. Features such as the porch columns (which were stock manufactured items) and the stuccoed walls were to be used extensively in the early 20th century. Less revivalistic and nearer the rough-and-tumble composition of earlier Queen Anne work is the pleasant two-family house by C. H. McClare at 212 Norfolk Street (1892; Fig. 168), which looks more like a single.

In Cambridgeport as elsewhere in the city, the most common if not the most flamboyant use of late Queen Anne decoration is found on the ubiquitous three-deckers of the 1890's. A characteristic example is 431 Putnam Avenue (Fig. 47), designed in 1900 by the same W. E. Clark who had done 183-185 Chestnut Street a few years earlier.

166. 141-143 MAGAZINE ST. 1897. EUGENE HARRINGTON, ARCHITECT

167. 145-147 MAGAZINE ST., 1897. EUGENE HARRINGTON, ARCHITECT

168. 212 NORFOLK ST., 1892.
C. H. McCLARE, ARCHITECT

169. 488 FRANKLIN ST., 1965. VICTOR CROMIE, ARCHITECT

Postscript: 20th Century

As noted before, Cambridgeport has few single-family houses of the 20th century because most land suitable for residential building had been occupied by 1900. Two exceptions are a brick house of the so-called English style at 89 Magazine Street (1938) and a ranch-type house at 65 Henry Street (1963). Of considerably greater design distinction, but still an exception to the Cambridgeport rule, is a house by architect Victor Cromie at 488 Franklin Street (1965; Fig. 169). Because of its two-story height, pitched roof, and shingled walls, the Cromie house fits compatibly into the streetscape. Not apparent from the street is the open interior plan, oriented toward a garden in the rear.

The contributions of the present century to residential Cambridgeport have been principally in apartment construction and in the remodeling of older dwellings. While it is inevitable that old buildings will be changed from time to time to meet current demands and tastes, it is tragic that so much remodeling is done without regard to original architectural character. In too many instances old houses are emasculated through the elimination of distinctive trim and the addition of artificial siding. In this sense the 20th century is leaving an imprint on Cambridgeport architecture, but the result, unhappily, is negative rather than positive.

PART THREE:
NON-RESIDENTIAL ARCHITECTURE

Cambridgeport has a far greater number and variety of non-residential buildings than have the two previous survey areas, East Cambridge and Mid Cambridge. In addition to neighborhood churches, schools, and stores, the district has civic, institutional, commercial, and industrial buildings that draw support from a much wider area. Massachusetts Institute of Technology, with the widest circles of support and influence, has buildings that are among the most important in the city.

The following discussion is divided into six sections: churches, schools, civic and institutional buildings, commercial buildings, industrial buildings, and M.I.T. buildings. Each section is roughly chronological in arrangement. In spite of some overlapping, division by building type seems to be the most effective way of covering the varied and abundant non-residential architecture of Cambridgeport.

Churches

With the significant growth of Cambridgeport population in the first years of the 19th century, and with the expectation of further growth, local developers faced the problem of providing for the public as well as for the private needs of Port residents. Both schools and churches were needed to draw the people together into a workable community. In 1802, therefore, Andrew Bordman gave the town a plot of land for the first schoolhouse, and in 1805, a few months after the port declaration, Bordman and four other prominent landholders organized themselves into the Cambridgeport Meetinghouse Corporation and provided land and funds "for the purpose of building a meetinghouse and supporting public worship." (Paige, p. 182.)

This first meetinghouse, built by the Corporation in 1807, was intentionally placed in the center of the community in order to serve the entire eastern part of Cambridge, including at that time both Cambridgeport and East Cambridge. It was not long, however, before separate sects gathered their own congregations and built denominational churches, diminishing the original community purpose of the central meetinghouse. The subsequent history of Cambridgeport churches is one of diversity.

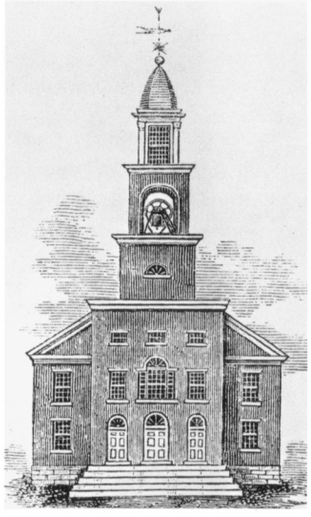
By 1817 the Baptists had established themselves in a meetinghouse of their own in Central Square, the first Baptist church in the city. They were followed in the 1820's by Universalist and Congregational groups, which also built near Main Street, and in the 1840's by a Methodist group. In the meantime, the original Cambridgeport meetinghouse had bowed to the ideological split in the First Parish Church in Harvard Square and had declared itself Unitarian. By the outbreak of the Civil War, then, Cambridgeport contained active Baptist, Congregational, Methodist, Unitarian, and Universalist congregations, each of which had built its own house of worship and some of which had already built more than one.

Despite this early number and diversity of sects in Cambridgeport, the church buildings themselves were surprisingly alike. Differing in size, material, and decoration, they were all built for preaching congregations and filled the same basic need for an unobstructed auditorium space in which to seat the worshipers. Although architectural styles changed with the passage of time, the differences between Cambridgeport churches of any one period stemmed more from the size and wealth of the individual congregations than from specific denominational needs. Liturgical demands remained fairly constant, and congregations built new churches only when their buildings burned – a frequent occurrence in Cambridgeport – or when their increased size and wealth required larger or more elaborate facilities. Outgrown churches were seldom abandoned or torn down, as there were always smaller, poorer congregations to make use of them; the histories of many Cambridgeport churches show that the buildings were handed from sect to sect as often as from congregation to congregation within the same sect. Because of their versatility and continued usefulness, many of Cambridgeport's 19th-century church buildings and all of its 20th-century churches have survived.

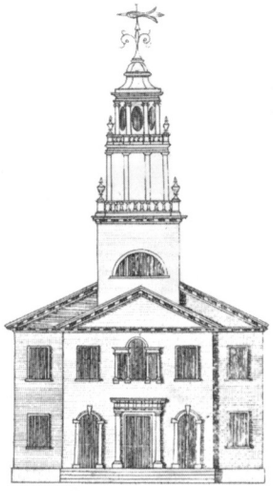
Early Meetinghouses

Until the Civil War, Cambridgeport churches, though varying in detail, followed the traditional New England Federal meetinghouse plan of a simple rectangular block with projecting central entrance vestibule and bell tower. The interior, entered from the tower vestible, was an undivided hall with galleries. Three of these pre-Civil War churches are still standing in Cambridgeport; others are known from early photographs and descriptions.

The earliest Cambridgeport church stood on the east side of Columbia Street between Harvard Street and Broadway in a block laid out to be the civic center of the Port. Built in 1807 by the Cambridge Meetinghouse Corporation, this two-story brick building with projecting central entrance pavilion and three-part bell tower was a fairly conventional example of the Federal meetinghouse pattern (Fig. 170). The wall surface was flat and the window treatment simple. The three arched entrance doors, the centralized second-story Palladian window, and the fanlight in the bottom stage of the tower all appeared in Asher Benjamin's popular late 18th-century pattern-book designs for meetinghouses and had been used in numerous New England examples. Characteristically, only certain elements were borrowed, not the composition as a whole. The facade of the Cambridgeport church was proportionately wider than any of Benjamin's designs, and the use of a flat-roofed rather than gabled entrance vestibule created an extra level, which the builder filled with windows resembling the small third-story windows of Federal houses. In this free combination of traditional and individual elements around a basic Federal meetinghouse form, the building set the pattern for subsequent early Cambridgeport churches.



170. FIRST CAMBRIDGEPORT CHURCH, COLUMBIA ST., 1807. DEMOLISHED 1834

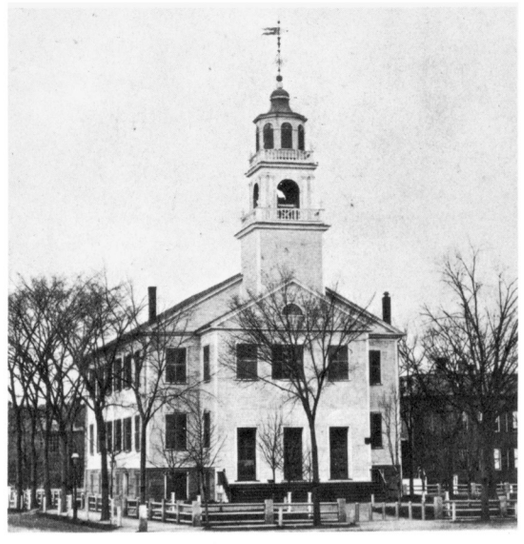


171. ASHER BENJAMIN DESIGN, 1797

The site was not so influential. The idea of creating a civic center for Cambridgeport was sound, but the choice of location proved unwise. There were no other buildings on Columbia Street at this time, and no other early churches were built nearby. When the 1807 meetinghouse was so damaged by wind in 1833 that it had to be abandoned, the congregation did not hesitate to abandon the site as well. The church that replaced it was located closer to Main Street and Central Square, which were developing as natural centers of Cambridgeport and had already attracted other churches.

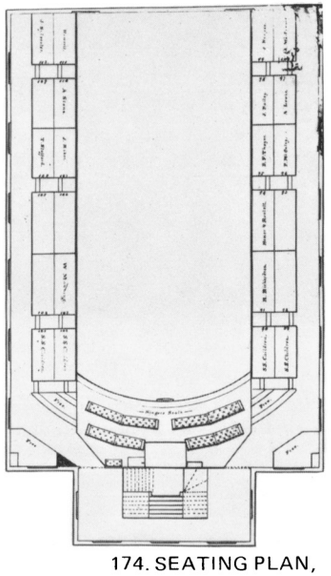
The earliest religious group to settle near Central Square was the First Baptist Church, which in 1817 dedicated a new wooden meetinghouse (Fig. 172) at the junction of Magazine and River Streets, a site the congregation has occupied continuously to the present. Although built of wood rather than of brick, the building was clearly similar to the first Cambridgeport meetinghouse. Even closer is its resemblance to a design published in 1797 in Asher Benjamin's *Country Builder's Assistant* (Fig. 171). Lacking a Palladian window and ornamented doorways, the Baptist meetinghouse was considerably less stylish than Benjamin's design and, like the 1807 meetinghouse, was considerably wider in proportion. The organization of the tower, however, followed the Benjamin plate faithfully, combining similar balustrades, urns, use of columns, and even a knobby dome on top to produce the same silhouette.

Below the finely detailed tower, the facade of the church was extremely plain, but some of this plainness may have stemmed from alterations. The building had to be enlarged in 1827, and in 1850 it was raised five feet to create a large Sunday School room under the main auditorium. When the meetinghouse was raised, the facade of the vestibule was lengthened, and the doors were extended to an awkward length. The unusually wide blank space above the doors probably originally held fan lights, as in the 1807 meetinghouse.



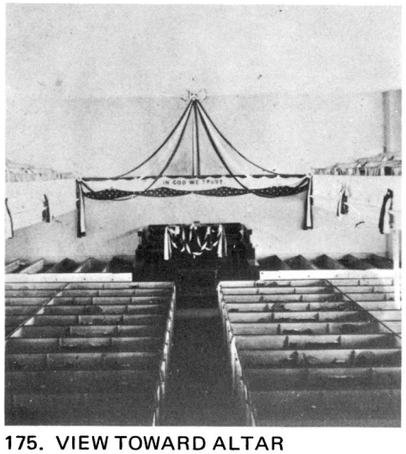
172. FIRST BAPTIST CHURCH, CENTRAL SQUARE, IN 1865. BUILT 1817, ENLARGED 1827, RAISED 1850. DESTROYED BY FIRE, 1866

173. SEATING PLAN, MAIN FLOOR, CA. 1836-1840

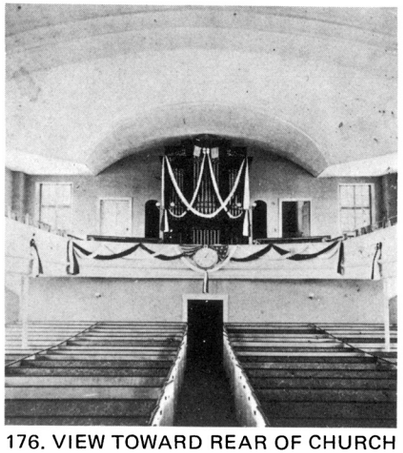


174. SEATING PLAN, GALLERY, CA. 1836-1840

The interior of the church followed the expected meetinghouse form. An early seating plan (Figs. 173 - 174) shows the position of straight rows of pews on either side of a center aisle and in the galleries on the long sides of the church. The back gallery was reserved for the choir, and the most remote pews both in the gallery and on the main floor were reserved for Sunday School children. Interior photographs (Figs. 175 - 176) show the church in its expanded and remodeled form shortly before it was destroyed by fire in 1866.



175. VIEW TOWARD ALTAR



176. VIEW TOWARD REAR OF CHURCH

FIRST BAPTIST CHURCH IN 1865, DRAPED TO COMMEMORATE LINCOLN'S DEATH

The next church to be built in Cambridgeport still survives, though it has been moved and greatly altered. Built in Lafayette Square in 1822, the Universalist Church was a typical towered wooden meetinghouse. In 1858 it was remodeled by Thomas Silloway, a Unitarian minister turned architect, who was responsible for several other 19th-century Cambridgeport churches. Silloway raised the building four feet on a new foundation to provide vestry rooms below the auditorium (similar to the 1850 raising of the First Baptist Church); he also remodeled both the exterior and the interior and topped the bell tower with a lofty and elaborate steeple (Fig. 20). In 1888 the church was sliced in half and moved down Main Street to Inman Street (*Mid Cambridge*, pp. 36-37), where it was reassembled and further remodeled. Now occupied by the Syrian Orthodox Catholic Church of St. Mary, it has been altered again to suit the needs of that congregation. Though it has lost most of its original character, as well as its 1858 Silloway steeple, the former Universalist Church remains important as the earliest Cambridgeport meetinghouse still in existence (Fig. 177).

177. SYRIAN ORTHODOX CATHOLIC CHURCH OF ST. MARY, 8 INMAN ST. BUILT 1822 AS UNIVERSALIST CHURCH IN LAFAYETTE SQUARE (SEE FIG. 14). RAISED AND REMODELED 1858 (SEE FIG. 20). MOVED TO INMAN ST. AND REMODELED, 1888

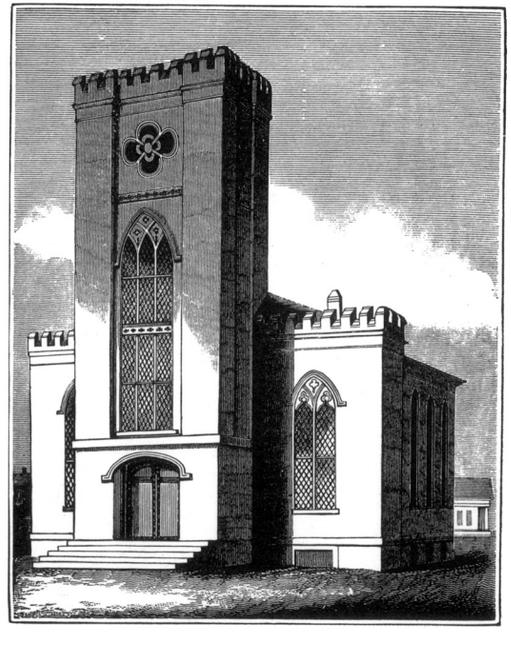
Medieval Detail, Traditional Massing

Cambridgeport churches built during the middle third of the 19th century showed a thickening of form and decoration and relied upon medieval precedents, both Gothic and Romanesque, for their detail. In massing, however, there was little break with the earlier period. The churches continued to follow the basic rectangular meetinghouse plan with center entrance tower and undivided auditorium space. The principal difference was that the tower became square rather than rectangular in plan.

Use of medieval detail is not surprising in a period that was dominated, for important church buildings, by the English Gothic Revival movement. Although Cambridgeport churches were far removed from the parent style (other American churches were closer prototypes, and there was a considerable time lag), their sequence of development was similar – at first a naive application of medieval detail to existing building types, followed by increasing archaeological accuracy in form as well as in detail.

When the 1807 Cambridgeport meetinghouse was abandoned in 1833, the congregation (which had become Unitarian in 1829) constructed a new building in 1834 on Austin Street between Norfolk and Essex Streets. Although retaining the basic meetinghouse scheme, this wooden building was the first church in Cambridgeport designed in a Gothic style (Fig. 178).

A blocky tower dominated the facade and contained a wide pointed-arch center entrance, a prominent lancet window with tracery, and incised Gothic quatrefoil trim. To further the medieval character and the impression of heaviness, the



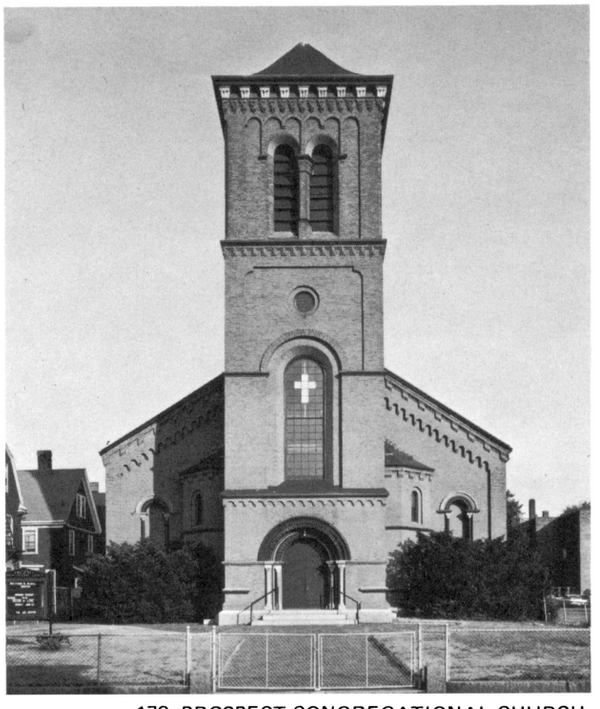
178. UNITARIAN CHURCH, 85 AUSTIN ST., 1834. ALTERED 1873. DEMOLISHED AFTER 1911

corners of the tower were thickened into pilasters, and battlements crowned the tower and facade roofs. Early English Gothic lancets with wooden drip caps and tracery pierced the facade on either side of the tower, but the tower itself carried the major ornament. The decorative interest was confined to the facade of the church; the sides, by contrast, were exceedingly plain. Inside, the plan followed that of the earlier meetinghouses. This combination of elements was characteristic of many Gothic Revival churches built around Boston in the 1830's. The Cambridgeport Unitarian Church was probably inspired by Isaiah Rogers's 1833 First Church (Unitarian) in Harvard Square. Showing a rather naive understanding of the medieval, both buildings relied on similar wooden facade detail grafted onto a meetinghouse shell to establish their Gothic style.

In 1873 the Cambridgeport Unitarian Church was raised, enlarged, and rebuilt in a Romanesque style. A *Cambridge Chronicle* article at the time of its rededication in 1873 reported that "the remodeling of the church has been so thorough that no trace of the original building is visible." The facade Gothic was wiped away and completely replaced by Romanesque. The interior was also updated and the pews arranged in concentric circles in the manner of later 19th-century Cambridgeport churches. In 1911 the congregation moved to a new building at 323 Harvard Street (*Mid Cambridge*, p. 45); the Austin Street building was converted to commercial purposes and ultimately was torn down.

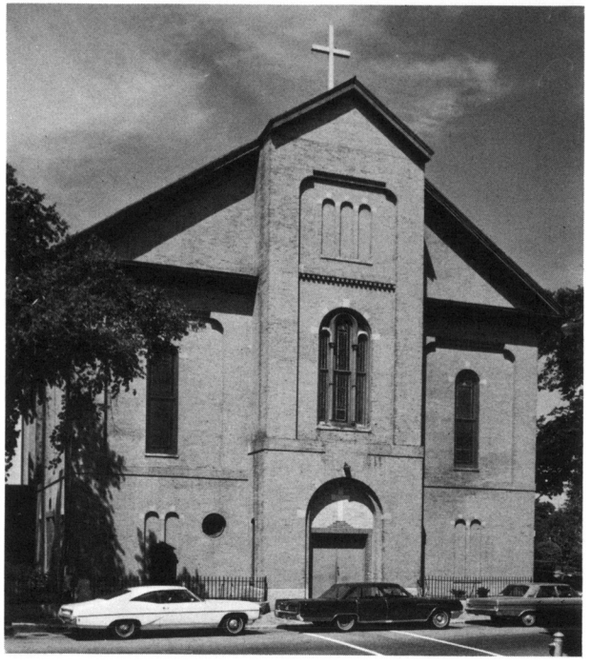
Another important early Cambridgeport church, Prospect Congregational, survives virtually unchanged. Since its site (on the west side of Prospect Street between Austin and Harvard Streets) is technically within the Mid Cambridge survey area, the building was published in *Mid Cambridge* (pp. 38-39). The congregation, however, has always been Cambridgeport-oriented; it originated as the First Evangelical Congregational Society of Cambridgeport and first occupied a wooden church of 1827 (of which no description or illustration survives) at Norfolk and Washington Streets. The present Prospect Congregational Church (Fig. 179) was designed in 1851 by A. R. Esty in the "Norman style of the Gothic order of architecture." This 1851 newspaper description goes on to say that the church was "in point of style unlike any one in New England." Esty was indeed one of the first to use Norman detail, but his church as a whole was basically another continuation of the towered meetinghouse plan. Substituting round arches for pointed, the Prospect Street Church recalls the 1834 Unitarian Church in its massing and organization of detail. More attention is paid to side detail, with blind arches enclosing roundheaded windows along the sides of the building. The widely arched center entrance, recessed roundheaded windows, and repetitive string courses again make the tower the dominant decorative feature of the church. The exterior brick surface was originally stuccoed in imitation of stone.

Inside, a low arched ceiling covers the open hall space and galleries. Except for the arrangement of the church furniture, which was changed in the 1890's, the interior of the church is in virtually original condition (Fig. 180). The parish hall wing at the rear was extended in 1879, but the architect, Thomas Silloway, duplicated the original building's detailing.



179. PROSPECT CONGREGATIONAL CHURCH, 99 PROSPECT ST., 1851. A. R. ESTY, ARCHITECT

180. INTERIOR



181. ST. BARTHOLOMEW'S EPISCOPAL CHURCH (ORIGINALLY HARVARD STREET METHODIST EPISCOPAL CHURCH), 1861. H. GRAVES, ARCHITECT

The last church built in Cambridgeport before the Civil War was the 1861 Harvard Street Methodist Episcopal Church, now St. Bartholomew's Episcopal (Fig. 181). Designed by H. Graves of Boston, this brick building replaced an earlier Graves design, an 1857 wooden Romanesque church that had burned. The congregation's original 1843 wooden church had also been destroyed by fire.

In its symmetrical massing and projecting entrance tower, as well as its use of round arches, Graves's church recalls the Prospect Street Church of ten years earlier. The detail is executed in broad simple shapes. Brick string courses separate the centralized tower into levels containing the deeply arched entrance, recessed round-arched window above, and a group of three round-headed windows near the present top of the tower. Originally the tower extended beyond the roof, carrying a clock and capped by a dome. An 1896 remodelling by George Finneran greatly accentuated the massiveness of the church by removing the dome and cutting the height of the bell tower down to the level of the gable front. As in the Prospect Street Church, blind flattened arches enclosing round-headed windows divide the long sides into bays and indicate the interior division into two levels.

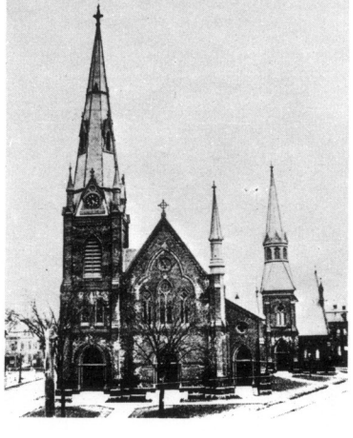
The interior is arranged like later Cambridgeport churches, with the large main audience room above the ground-floor vestry room and library. The main second-floor room is reached by stairs in the vestibule, and a gallery runs along only the front end of the church.

Towered Gothic

The first substantial change in design came in post-Civil War churches, which abandoned the blockiness and predictability of the traditional meetinghouse for the loftiness and asymmetry of the towered Gothic. Built on a grander scale, these Cambridgeport churches of the late 1860's broke from an earlier simple rectangular massing by adding transepts, towers, chapels, and externally expressed side aisles. The pointed arch, which had been used hesitantly in the 1834 Unitarian Church, was now combined with buttresses, turrets, and spires and became an integral part of this "Modern Gothic Style" described in an 1866 newspaper article as the "prevailing manner."

First to show this change in design was the First Baptist Church designed in 1866 by S. S. Woodcock on the site of the 1817 meetinghouse, which had burned. Built of brick with freestone trim, this Gothic Revival building was asymmetrically organized around a dominant corner entrance tower topped by an elaborate octagonal spire (Fig. 182). Another similar but smaller tower marked the entrance to the chapel at the rear, and a slender facade turret springing from a clustered corner buttress echoed the major towers and defined the central bay of the facade. Both towers had corner buttresses and were pierced by slender lancets at each level. Three lancets and a rose window enclosed within a stone ogee molding filled the main facade gable. These particular motifs, as well as the pinnacles and window openings on the spire, derived from 13th-century English work and had been used in Gothic Revival churches in Boston.

Like A. R. Esty's Old Cambridge Baptist Church (1867; *Mid Cambridge*, pp. 39-40), the First Baptist Church can be compared to H. H. Richardson's contemporary Church of the Unity in Springfield, Massachusetts, which it resembles in basic massing and stylistic detail. Woodcock's use of brick in the First Baptist Church produced a fussier combination of small details without the coherence or solidity of Richardson's stone church. The battered foundation, however, anchored the Cambridgeport church visually to its site, and prominent horizontal string coursed pulled together the disparate elements of the facade.



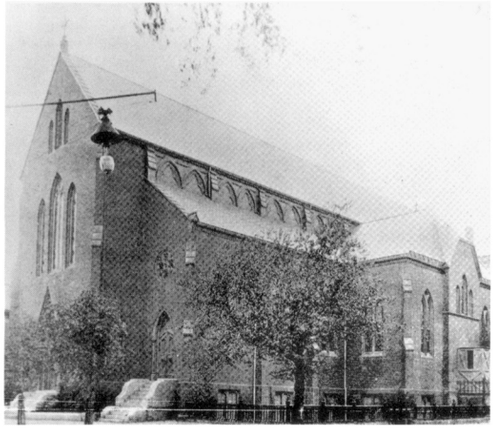
182. FIRST BAPTIST CHURCH, CENTRAL SQUARE. SECOND BUILDING, 1866. S. S. WOODCOCK, ARCHITECT. DESTROYED BY FIRE, 1881

The church interior did not carry out the English cathedral plan predicted by the exterior but was broken up to suit the needs of the Protestant congregation. The main audience hall in the central nave carried a gallery on three-sides and ended in a pulpit at the transept wall. The transept, cut off from the nave, contained Sunday School rooms, a pastor's room, and a kitchen, as well as the traditional chapel. These rooms could be closed off by folding doors and used separately, or they could be thrown together into one large space. This interior arrangement, like the exterior corner-towered massing, is similar to that of the Old Cambridge Baptist Church.

At the time it was built, the First Baptist Church of 1866 was the most ambitious church building in Cambridgeport. It was destroyed by fire in 1881, and unfortunately no interior views have survived.

At the same time the Baptists were building in Central Square in 1866, the first Roman Catholic parish in Cambridgeport was building a brick Gothic church on the site of the old town hall at the corner of Harvard and Norfolk Streets (Fig. 183). Designed by James Murphy of Providence and dedicated in 1867, St. Mary's of the Annunciation remained the only Catholic church in Cambridgeport until the early 20th century. Like its contemporary, the First Baptist Church, St. Mary's is a large Early English Gothic church, but unlike the First Baptist, it has a symmetrical and very plain exterior. Although it lacks a tower or elaborate detail, its use of pointed arches and expressed aisles and transepts places St. Mary's equally within the Gothic Revival mode.

Built for a Catholic congregation, the plan of St. Mary's corresponds directly to the English cathedral plan clearly expressed by the exterior. Clustered columns carrying pointed arches divide the main interior space into a high, wood-ribbed, vaulted nave and two-story side aisles. The transepts form traditional side chapels on the way to the apse. To accommodate its growing parish, St. Mary's had to be extended 45 feet in 1888. The exterior remains otherwise in substantially original form, although the addition of corner entrances during a 1929 remodeling by architects Maginnis and Walsh closed several side lancets and the center window in the transept.



183. ST. MARY'S OF THE ANNUNCIATION, HARVARD AND NORFOLK STS., IN 1895. BUILT 1866. JAMES MURPHY, ARCHITECT

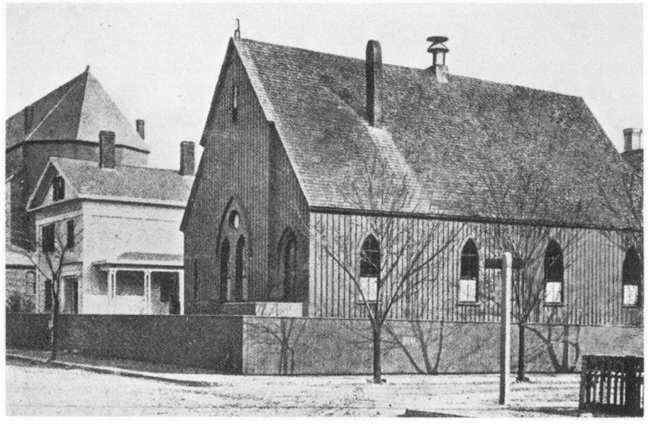
Chapels

The same period that saw these large Gothic Revival churches going up in Cambridgeport brought a wave of modest church building as well. In the 1860's and 70's the number of new congregations in Cambridgeport steadily increased. Often established as missionary stations under the patronage of one of the older churches, these new congregations built similar small wooden buildings for their first meetings. The form of these one-story chapels with steeply pitched roofs and the simplest of wooden Gothic detail derived from English Gothic Revival parish churches popular in England in the 1840's and 50's and used extensively in this country by Richard Upjohn and others. Designed for the Anglican church, this form was a logical one for Americal Episcopal churches, but like the early meetinghouse plan, it seemed to serve equally well for all Cambridgeport denominations.

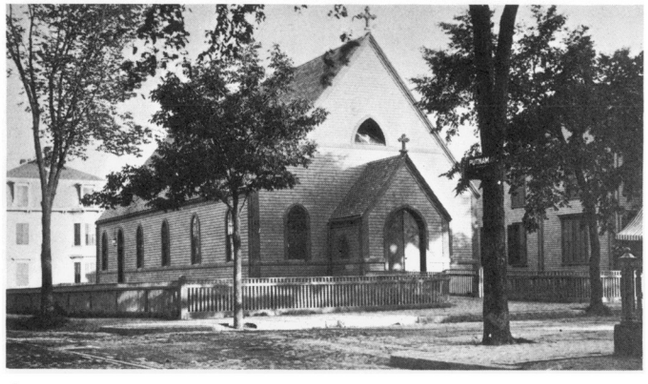
Cost was necessarily a major consideration for these new congregations, and a limiting one, but style was important, too; as the *Cambridge Tribune* wrote, "the main object was to build an inexpensive, but not cheap, church." The Gothic chapel style gave these congregations some measure of architectural style without being either expensive or difficult to build. The results were charming and individual, as well as functional, and they had a surprisingly lasting effect on Cambridgeport building. The chapel form itself continued to be popular with new congregations well into the 20th century, and the original chapel congregations precipitated a new wave of major church building in the 1870's and 80's as they outgrew their first buildings. Unfortunately, only a few of the early chapels have survived, and then only in greatly remodeled form, so that old photographs and descriptions are the major sources of information for this period.

The simplest of the early chapels was the small clapboarded building constructed in 1861 at 180 Harvard Street for the Sunday School meetings of a new Baptist group sponsored by the First Baptist Church. With neither tower nor porch, and with only a cluster of pointed arches on the facade to mark it as Gothic in style, this plain one-story chapel was an extremely modest reflection of the English parish-church tradition. Outgrown five years after it was built, the chapel was sold to St. Mary's Church for use as a school (Fig. 184), while the original congregation moved to a new and larger church on the corner of Broadway and Boardman Streets.

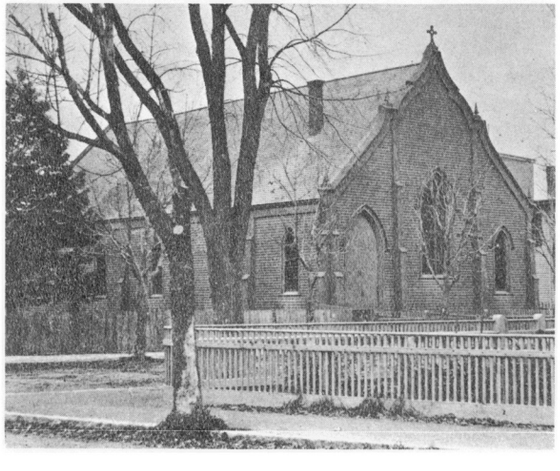
The First Baptist Church supported a number of such missionary stations that successfully grew into independent congregations. The Charles River Baptist Church, established as a Sunday School in 1870, built a small wooden chapel at the corner of Putnam Avenue and Magazine Street (Fig. 185). Designed by A. R. Esty, the clapboarded building measured 33 by 78 feet and cost a mere $8,500. A projecting gabled vestibule with simple pointed doorway led into the main auditorium seating 300 people. A small trefoil window above the entrance porch ornamented the facade, and the widely sloping roof allowed for characteristic open timber roof construction inside. In 1889, when a new brick church was built for the congregation, the chapel was moved back on the lot and turned to face Putnam Avenue. Incorporated into the new building and faced with brick, it continues in use as a parish hall for Immanuel Baptist Church, the congregation that succeeded Charles River Baptist.



184. BAPTIST SUNDAY SCHOOL CHAPEL,
HARVARD ST., 1861. DEMOLISHED



185. CHARLES RIVER BAPTIST CHURCH, PUTNAM AVE. AND MAGAZINE ST.,
1870. A. R. ESTY, ARCHITECT. MOVED AND ALTERED, 1889



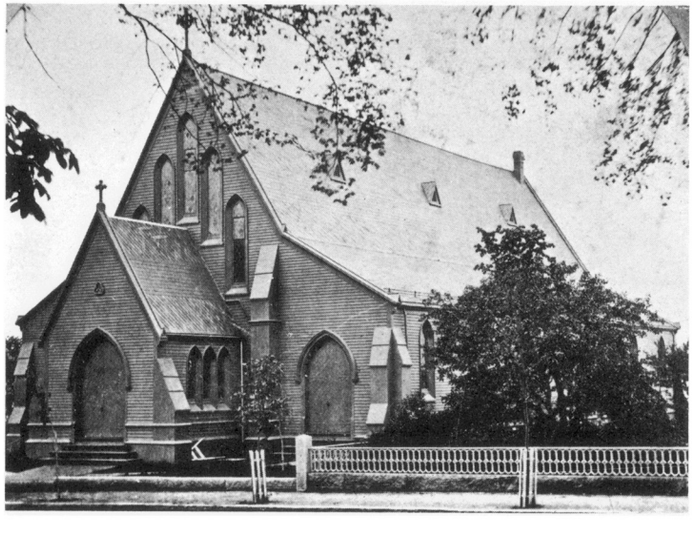
186. STEARNS CHAPEL,
163 HARVARD ST., 1863

A more elaborate version of the chapel form still stands in its original location but in a drastically remodeled state. Stearns Chapel at 163 Harvard Street, (Fig. 186) was erected in 1863 as a missionary station of Prospect Congregational Church and continued to function as a mission Sunday School until 1890. Another simple rectangular parish church, Stearns Chapel had more actual Gothic detail. As in Richard Upjohn's work, wooden buttresses divided the facade into three sections and the sides of the chapel into bays. The entrance was a simple pointed arch with drip molding, and the windows were single lancets with the same drip molding, slightly larger and higher to mark the center bay. The most distinctive decorative detail was the heavy ogee molding along the top edge of the gable; this molding, more Baroque than Gothic in profile, drew the entire facade into a unified design.

Inside, Stearns Chapel was plain and extremely practical. Measuring a wide 40 by 60 feet, it had no galleries or permanent partitions, but the large open space could be divided into two rooms by folding doors. Even the seats were arranged in a practical manner, so that the backs could be changed from one side to the other "like the seats in railroad cars" to provide for more than one use.

Another church of this period, St. Peter's Episcopal Church at Massachusetts Avenue and Sellers Street, began as a wooden Gothic chapel designed by Woodcock and Meacham in 1864. Unlike the simpler, rectangular Cambridgeport chapels, St. Peter's had side aisles expressed on the exterior, an entrance tower projecting on the center facade, and a ground-floor vestry below the auditorium. In 1867, soon after it was finished, the church was raised five feet, and the tower, described as "unsightly" in a contemporary Cambridge newspaper, was removed and replaced by an entrance vestibule "to harmonize with the architecture of the church." A. R. Esty was the architect of the 1867 modifications. After removal of the tower, St. Peter's resembled the other Cambridgeport chapels (Fig. 187).

187. ST. PETER'S EPISCOPAL CHURCH AFTER 1867 REMODELING BY
A. R. ESTY. BUILT 1864. WOODCOCK & MEACHAM, ARCHITECTS

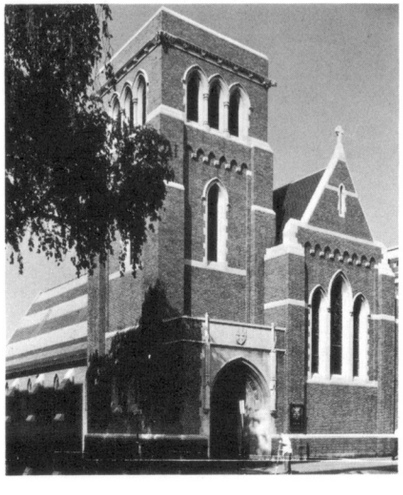


The goal of St. Peter's was to build a church with as much Gothic detail as possible for the least cost. Woodcock and Meacham were hired expressly because they had "by a new mechanical combination supplied a want long felt by those who desire to procure for the interior of a Gothic church, a beautiful effect without involving a large expense." This invention (described in the *Cambridge Chronicle*) provided St. Peter's with an open-timbered ceiling and the appearance of a clerestory as in the larger churches, yet at little cost. Between the exposed beams, the ceiling was painted blue with gilt stars, traditional in Cambridgeport churches of the second half of the 19th century. Exterior Gothic detail included simple lancets and wooden buttresses dividing the facade into three bays. Angle buttresses, wooden versions of the brick corner buttresses on Woodcock's First Baptist Church, accented the front corners.

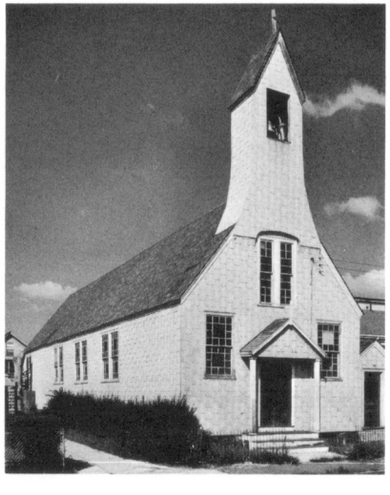
St. Peter's is now a prominent corner-towered brick church, dating substantially from a 1932 rebuilding by Allen and Collens (Fig. 188). Part of the project was a new Sunday School wing toward Green Street. Although the earlier chapel formed the core of the new church, the original exterior character was lost behind the new brick shell. Until a few years ago, the little chapel dormers that gave Woodcock and Meacham's clerestory effect survived as a reminder of the building's modest beginnings.

The idea of these mission stations established by parent churches continued in popularity throughout the 19th century, and the actual form of the early chapels survived as well. In 1886, St. Peter's Church built a diminutive church on Allston Street for the convenience of its parishioners because, an 1887 newspaper explained, "communication with St. Peter's Church by horse car was very indirect." Designed by architect Robert H. Slack, St. Phillip's is still in use as St. Augustine's African Orthodox Church (Fig. 189). Although built a full twenty years after the first wave of Gothic chapel buildings, it shared with its predecessors the simple one-story rectangular chapel form and open-timbered auditorium space. Its simple center bellcote was not found in other Cambridgeport chapels, though the feature appeared in chapels in other parts of Cambridge and belonged to the same English rural tradition. St. Phillip's was shingled and painted dark red, appropriate for its 1880's date, but otherwise followed the earlier chapel pattern. Similar examples of the continuation of this form can be found as late as the 1894 Church of Scotland on Hampshire Street, built as a Baptist Church, and the 1908 St. Bartholomew's Episcopal Church (now First Holiness Church of the Apostolic Faith), built on Columbia Street as another mission church of St. Peter's.

188. ST. PETER'S AFTER 1932 REBUILDING BY ALLEN & COLLENS



189. ST. AUGUSTINE'S AFRICAN ORTHODOX CHURCH (ORIGINALLY ST. PHILLIP'S CHURCH), ALLSTON ST., 1886. ROBERT H. SLACK, ARCHITECT



Later 19th-Century Churches

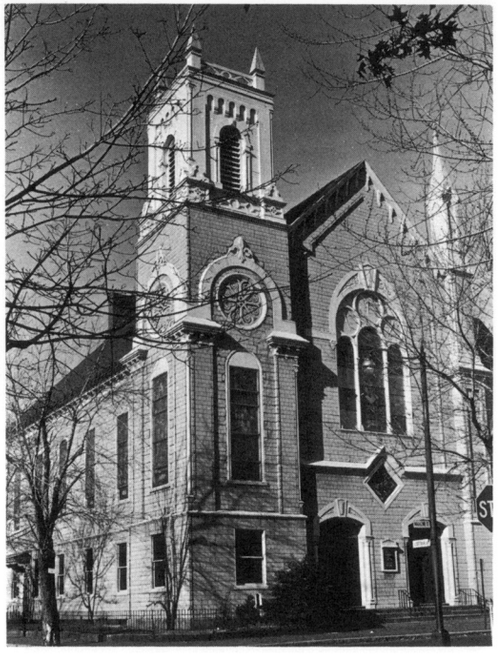
Although only one church was built in Cambridgeport in the 1870's, the 1880's brought a considerable flurry of church construction, reflecting a general citywide building boom. These new churches were generally large and imposing, with asymmetrical corner towers emphasizing the use of corner lots. Some were built of brick, but most were of wood, relying on an abundance of wooden ornament to establish their styles. In plan, these later churches were usually organized with the sanctuary over a ground-floor parish hall or Sunday School room.

The Pilgrim Congregational Church, which had grown out of Stearns Chapel, was the first of these churches (Fig. 190). Built in 1871 on the corner of Magazine and Cottage Streets, it was also the first major church built on Magazine Street, which was to become the "Church Street" of Cambridgeport in the 1880's.

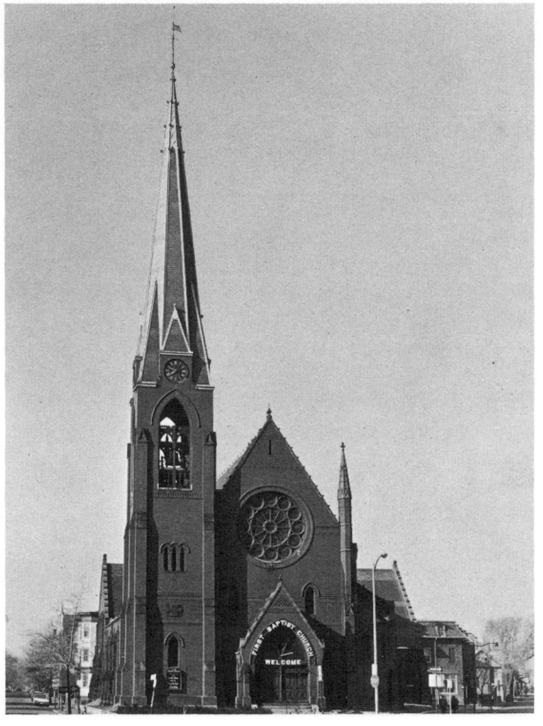
The exterior of Pilgrim Congregational was designed by Thomas Silloway, the Unitarian minister turned architect who had remodeled the Universalist Church in Lafayette Square and later designed several other churches in Cambridgeport. Characteristic of Silloway's designs, the church was built of wood with a wealth of applied wooden ornament reflecting in a patchwork fashion the variegated surfaces of contemporary stone churches. Although described in the *Cambridge Chronicle* as "Romanesque" in style, Pilgrim Congregational seems a far cry from the severe solidity of the earlier Romanesque Prospect Congregational Church, and Silloway's exuberant combination of fretwork and carved panels turns the roundheaded windows and doors of the facade into pointed arches.

In its asymmetrical organization of tall corner tower set against the center facade gable and partially balanced by a slender turret on the other side, Pilgrim Congregational resembles the Gothic First Baptist Church of 1866. Originally the tower also carried a steeple, which would have added a lofty vertical accent to the facade. The exterior is presently shrouded in asphalt siding that obscures much of the trim and emphasizes the tacked-on quality of the rest.

The interior was designed by James Sparrow, a local builder who had designed a number of Cambridgeport houses (including many along Magazine Street) and who was himself a member of the Pilgrim Church congregation. Characteristic of the period, the church contains an elaborately decorated main auditorium above a ground-level parish hall.



190. PILGRIM CONGREGATIONAL CHURCH, MAGAZINE AND COTTAGE STS., 1871. THOMAS SILLOWAY, ARCHITECT

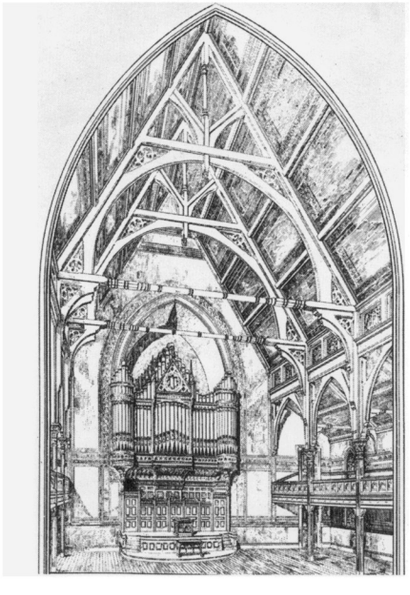


191. FIRST BAPTIST CHURCH, CENTRAL SQUARE 1881. HARTWELL & RICHARDSON, ARCHITECTS

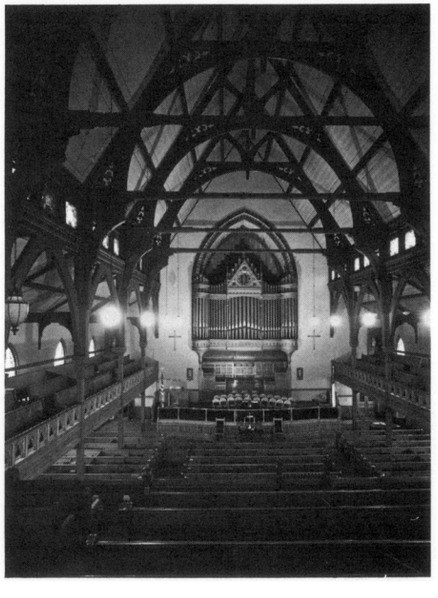
The pivotal lot at the head of Magazine Street had been occupied by a First Baptist Church building since 1817. In 1881 the congregation built again on the site, this time a new Gothic Revival brick church (Fig. 191) to replace the 1866 church, which had just been destroyed by fire. Designed by Hartwell and Richardson on the foundations of the earlier building, the new church retained basically the same ground-plan of rear parish-hall wing at right angles to the corner-towered nave. Some of the same organization of decorative elements was retained as well, but with a stiffer, more mechanical handling, especially of windows. The exterior trim is finely detailed. Brick basket-weave patterns, terra-cotta leaf-cluster drops and carved foliate panels over the windows, rows of multi-colored slates, and reddish-brown sandstone lintels and trim throughout form a handsome combination of materials and textures.

The spacious interior of the sanctuary, rising 70 feet above street level, is divided into three aisles by slender cast-iron columns that support galleries on three sides and carry an elaborate open-truss roof system (Fig. 192-193). The sanctuary is lavishly finished in light ash carved in a variety of Gothic motifs and is lighted by stained-glass windows (Fig. 194). The parish-hall rooms behind the auditorium have carved wood and stained-glass partitions which can be raised and lowered to unify or divide the space as desired (Fig. 195). Except for minor alterations the church is in fine original condition inside and out, and the original furniture and organ casing have been maintained as well. The First Baptist Church has been important to Cambridgeport in the number of new churches it has sponsored and in the buildings it has constructed. Unfortunately, the present church is too large for the congregation, and there are plans for its demolition.

192. INTERIOR VIEW PUBLISHED 1882



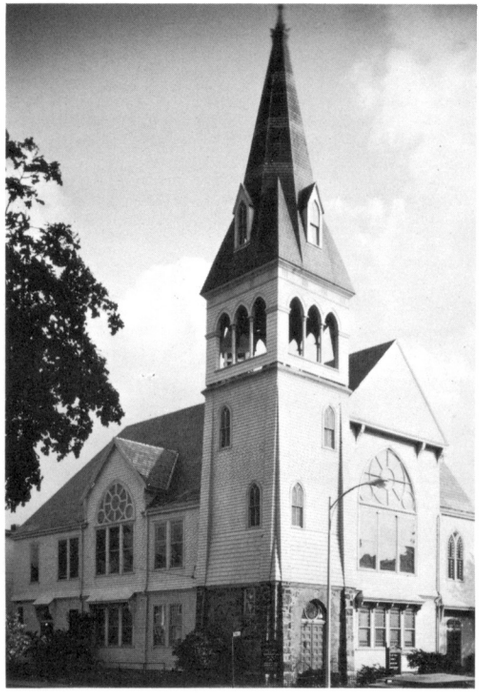
193. INTERIOR



194. FIRST BAPTIST CHURCH. SANCTUARY INTERIOR

195. FIRST BAPTIST CHURCH. PARISH HALL INTERIOR

Further down Magazine Street toward the river, two more Cambridgeport churches, both begun as chapel Sunday Schools, settled in new buildings in the 1880's. Grace Methodist Church (1886; F. E. Kidder, architect) on the corner of Perry Street is an exuberant example of Queen Anne shingle work with Gothic detail and a Queen Anne version of a 13th-century Gothic tower (Fig. 196). Located near Pilgrim Congregational Church, Grace Methodist shares Pilgrim's basic configuration of corner tower butted against the center gable with its main stained-glass window. Unlike the 1871 church, however, the massing and detail are closely integrated, avoiding the effect of tacked-on decoration. Exterior richness is attained through asymmetrical placement of windows and through juxtaposition of materials – stone, clapboards, and two patterns of shingles. As in domestic Queen Anne work, the levels of the church as well as the materials flow subtly into each other. Front and side gables project on curving brackets, and the second-story wall swoops down to form hoods over the doors and major windows on the first floor. The Brighton puddingstone foundation of the church carries to the second floor of the tower, where the wall surface (even on the buttresses) changes to shingle. Small pointed-arch windows sprinkled asymmetrically up the tower further emphasize the corner focus of the church.

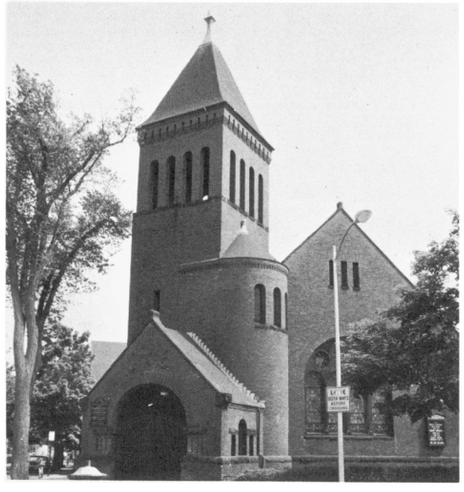


196. GRACE METHODIST CHURCH, MAGAZINE AND PERRY STS., 1886. F. E. KIDDER, ARCHITECT

The interior space is divided between the parish hall and the sanctuary above. Reached by a winding stair in the tower, the sanctuary was originally elaborately finished with heavy wood trusses on a cove ceiling painted the traditional sky blue with gold stars. All the decoration, including the beams, has now been repainted in bland pastels, but the church otherwise maintains its original organization and has been admirably preserved.

The last 19th-century church built on Magazine Street was a new and larger building for the Charles River Baptist Church (now Immanuel Baptist) at the corner of Putnam Avenue. Built in 1889, when a number of Richardson Romanesque public buildings were going up in Cambridge, the new church by H. S. McKay is a fine example of brick Romanesque with brownstone trim. It takes advantage of its corner lot in an unusual way by means of a corner entrance tower set diagonally to the side and front of the church. (Fig. 197). The wide angle between the tower and the facade gable is filled by a lower cylindrical tower that flows out of the main tower and pulls the various shapes into a successfully unified composition.

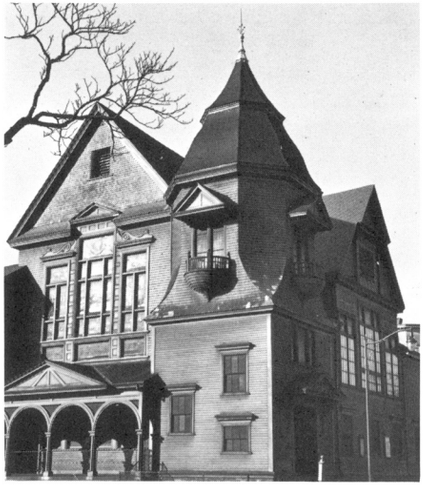
In plan the church is spread out on one floor instead of following the second-floor auditorium scheme that had become so common. With the entrance vestibules consciously placed outside the church proper, the main space of the church could be one large undivided room. The auditorium has an open trussed roof, and the pews are arranged in concentric circles to provide the greatest seating capacity.



197. IMMANUEL BAPTIST CHURCH, MAGAZINE ST. AND PUTNAM AVE., 1889. F. S. McKAY, ARCHITECT

198. WOOD MEMORIAL CHURCH, AUSTIN AND COLUMBIA STS., 1883. THOMAS SILLOWAY, ARCHITECT

199. BROADWAY BAPTIST CHURCH, BOARDMAN ST. AND BROADWAY, IN 1930's. ORIGINAL BUILDING REBUILT 1889 BY E. K. AND W. E. BLAIKIE



200. BROADWAY BAPTIST CHURCH IN 1969

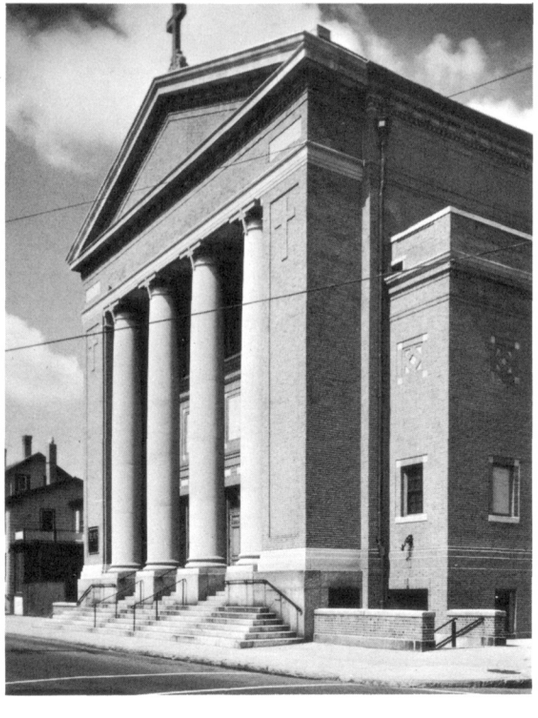
Two churches were built north of Massachusetts Avenue in the 1880's. The Wood Memorial Church (1883; Fig. 198) at the corner of Austin and Columbia Streets is another asymmetrically organized building by Thomas Silloway, suggesting his Pilgrim Congregational Church of twelve years earlier in its applied wooden detail. The use of a corner lot is more successful than in the earlier church; the tower is more integrated into the composition and is used as a pivotal corner focus rather than just marking the end of the facade. Similarly, the irregular massing created by the deep cross-gable plan gives the building a truly Queen Anne feeling. Although described in contemporary newspapers as in the "Romanesque style of architecture," Wood Memorial, like the Pilgrim Church, has circular- headed windows surrounded by wooden hoods, making them resemble Gothic lancets. The gables of the church are sharply pointed, an elaborate wooden Gothic porch frames the main door, and the wealth of brackets and applied ornament overshadows any Romanesque feeling that may originally have been intended. Like Pilgrim also, Wood Memorial has been detrimentally covered with asphalt siding (here in an imitation brick pattern) and has lost the top of its steeple, but the exterior still retains most of its original window trim and cornices, as well as its polychrome shingle roof.

The other church of the 1880's north of Massachusetts Avenue had its origins in an earlier structure. When the wooden Broadway Baptist Church of 1866 at Broadway and Boardman Street was damaged by fire in 1889, the congregation decided to take the opportunity to rebuild the church into what the *Cambridge Tribune* described as "a unique and handsome edifice, fitted up in a modern and cheerful style." This " modern style" for architects E. K. and W. E. Blaikie involved re-doing the wooden church entirely in a Queen Anne idiom, complete with sculptural corner tower, irregular cross-gable plan, odd-sided asymmetrically placed windows, and varied shingle patterns characteristic of the 1880's (Fig. 199). The main entrance is on Boardman Street, approached by a flight of granite steps and an open colonnaded porch. Above this porch an elaborate three-part stained-glass window with irregular mullions and carved wood detail marks the level of the second-story sanctuary. In typical Queen Anne fashion, the pedimented center panel of this window breaks through the shingling in the gable, fusing the various levels of the church. The elaborate carving on this window is now gone, but the original configuration can still be traced in the remaining break in the shingling (Fig. 200). Likewise, the corner tower, which has sadly lost its wonderful sculptural balconies and hoods, retains its original window arrangement and its eight-sided dome-like roof with copper finial. The large three-part windows on the cross gables of the transept have survived more intact and give a good indication of the elaborateness of the 1889 rebuilding. None of the windows on the Broadway Baptist Church are pointed, nor are there any other medieval stylistic trappings. Abandoned by its congregation in 1966 and subsequently used by the Salvation Army, Broadway Baptist Church now serves as a community center, though its future is uncertain.

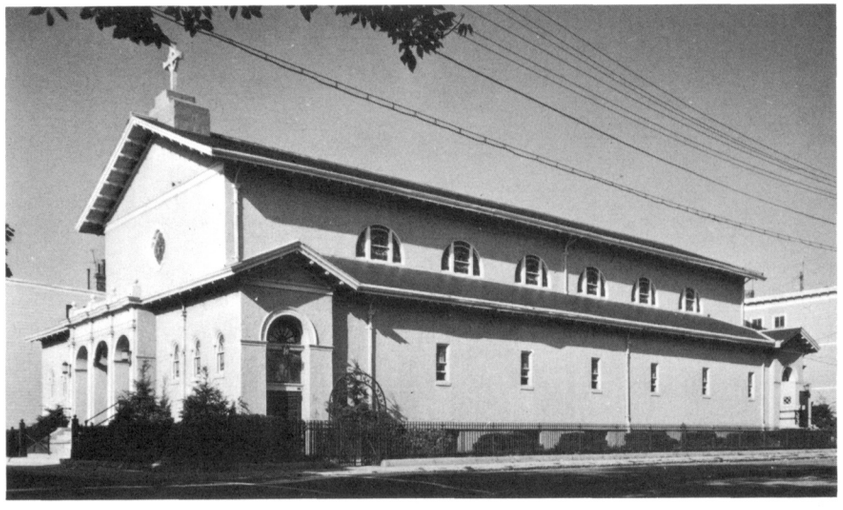
20th-Century Churches

The beginning of the 20th century saw the establishment of a number of new churches in Cambridgeport, reflecting the substantial influx of immigrants into the district. The first synagogue was built in 1901 and the first Lutheran church in 1908; four new Catholic churches, each for a different national congregation, were built within the five years 1907-1912. Previously established denominations such as Baptists and Methodists did some building as well, but most of their churches were small compared with 19th-century or other 20th-century examples.

The earliest of the four Catholic churches and the only one south of Massachusetts Avenue is Blessed Sacrament Church at the corner of Pearl and McTernan Streets (Fig. 201). This large Classical Revival brick structure was designed in 1907 by Charles R. Greco, a local architect who was responsible for several of the city's early 20th-century public buildings. Blessed Sacrament faces Pearl Street with a monumental temple front dominated by four two-story columns in antis. The giant columns, the fully articulated entablature, and the crowning pediment are of solid, imposing proportions, characteristic of Greco's other public buildings. Besides the columns, decoration on the exterior is confined to patterns in the brickwork, with occasional white accents. Shallow recessed panels, rows of bricks laid vertically or in cross patterns, and an angled brick cornice relieve the otherwise flat expanse of wall surface along McTernan Street.



201. BLESSED SACRAMENT CHURCH, PEARL AND McTERNAN STS., 1907. CHARLES R. GRECO, ARCHITECT.



202. ST. PATRICK'S CHURCH, BERKSHIRE AND YORK STS., 1909. CLOUGH & WARDNER, ARCHITECTS

In the northern part of Cambridgeport, the variety of immigrant groups required separate Catholic parishes. Three Catholic churches were built within three years of each other, in different styles, to serve Portuguese, Irish, and Lithuanian congregations. The location of all three around Donnelly Field, almost within sight of each other, shows how dense the Catholic population there had become since the filling operations in 1894.

The Irish Catholics built St. Patrick's Church at the corner of York and Berkshire Streets in 1909. Designed by architects Clough and Wardner, St. Patrick's is a curious mixture of Classical and California Mission styles (Fig. 202). The triple-arched entrance porch draws on Classical sources, while the broad overhang, the long horizontal massing, and the use of stucco all recall the style of early California missions. The entrance bay provides the most plastic decoration; otherwise, the wall surface is relatively plain. Small roundheaded windows are arranged in a horizontal band halfway up the wall, and above the entrance the nave wall is broken only by a single small decorative window. Compared to the exterior, the interior of St. Patrick's is quite elaborate. The altar, flanked by polychrome plaster reliefs dating from a remodeling of the early 1960's, forms the major decorative focus.

Near St. Patrick's, on the corner of Windsor Street and Webster Avenue, architects Maginnis and Walsh designed a Catholic church in 1909 for a Lithuanian congregation. Like St. Patrick's, Immaculate Conception Church is a curious combination of textures and details (Fig. 203). The building is highly vertical in organization, yet it is very flat and is dominated by an equally flat and unusual central projecting bell tower. Though projecting, the tower is not much deeper than the side buttresses, and with its narrow stepped sides it is similar in configuration. It is capped by a widely overhanging tile roof supported by wooden brackets. The rest of Immaculate Conception's exterior is simple and more conventional. Side aisles continue to the height of the nave, and one

sloping roof encompasses both nave and aisles. The plainness of the exterior is relieved by simple brick trim. Lines of vertically laid brick mark the different levels, rows of brick surround the recessed roundheaded windows, and protruding headers set in an open checkerboard pattern vary the flat wall surface of the front tower.

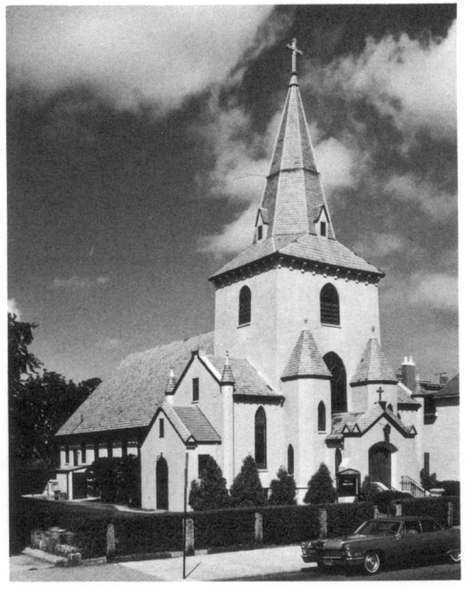
Inside, the church is divided into classrooms on the ground story and a main auditorium above, approached by a double flight of stairs in the tower. The auditorium is spanned by a segmental ribbed vault with no interior supports and terminates in a shallow apse with a white marble altar and rail.

203. IMMACULATE CONCEPTION CHURCH, WINDSOR ST. AND WEBSTER AVE., 1909. MAGINNIS & WALSH, ARCHITECTS

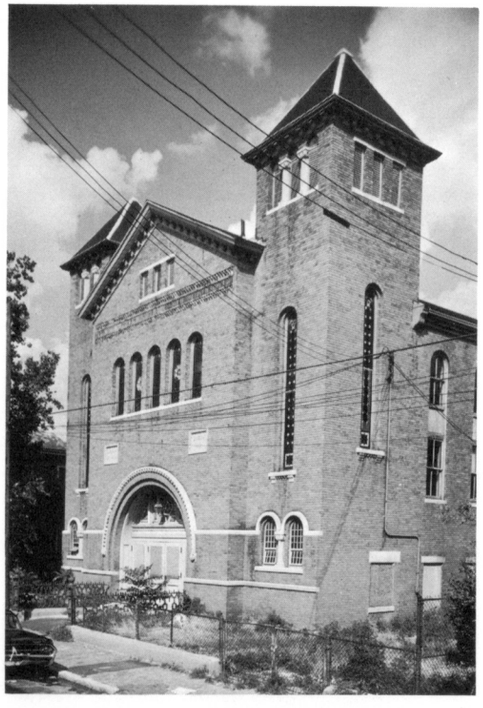
204. ST. ANTHONY'S CHURCH, PORTLAND AND HARDWICK STS. 1912 FACADE BY MAGINNIS & WALSH ON 1898 CHURCH

In 1912 the same architects, Maginnis and Walsh, were employed by a Portuguese congregation for St. Anthony's Church at Portland and Hardwick Streets. This 1912 project involved remodeling a simple 1898 wooden building to produce an imposing facade more in keeping with the size and quality of the other Catholic churches (Fig. 204). Only the facade was changed, so that the original clapboarded 1898 exterior is still visible along Hardwick Street. The well-proportioned temple front recalls Alberti's S. Francesco at Rimini and is stuccoed to resemble stone, although the broad pilasters separating the facade into bays are of painted wood. Above the entrance, a Colonial Revival Palladian window marks the level of the main auditorium. The triple-arched Classical entrance leads into a somewhat cramped vestibule, occupied mostly by steps. The interior retains the simple boxlike shape of the earlier building.

Most 20th-century non-Catholic churches in Cambridgeport were built for new denominations rather than for existing ones – generally for specifically national groups. Many introduced more specialized designs than before. For a Swedish congregation, architects Newhall and Blevins designed the present Faith Lutheran Church at 311 Broadway (Fig. 205). A simplified and Scandanavian version of early German medieval churches, this 1908 design recalls in particular the *Westwerk* of the Ottonian period. The large blocky tower and smaller emanating towers and gables give the appearance of a centralized building. Actually the central tower serves as a forward transept, and the nave extends behind the tower in a conventional rectangle. The decoration is restrained and the steeple plain, furthered by the plain stucco walls and simple recessed windows. The blocky forms of the towers and the modest overall surface treatment are characteristic of smaller churches throughout Sweden and Denmark. The stucco and painted wood trim were favorite building materials of Newhall and Blevins at this period.

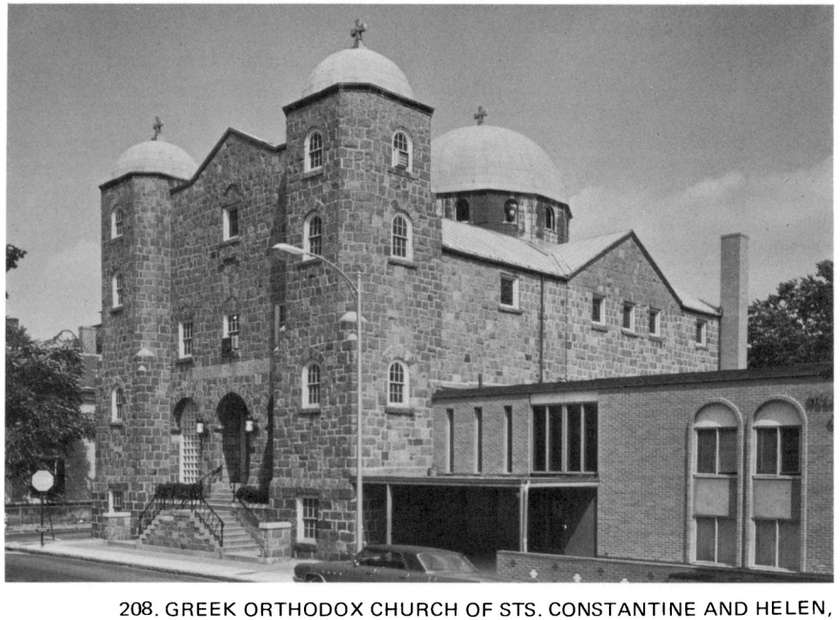


205. FAITH LUTHERAN CHURCH, 311 BROADWAY, 1908. NEWHALL & BLEVINS, ARCHITECTS



206. BETH ISRAEL SYNAGOGUE, COLUMBIA ST., 1901. NATHAN DOUGLASS, ARCHITECT

207. TEMPLE ASHKENAZ, TREMONT ST., 1924. S. S. EISENBERG, ARCHITECT



208. GREEK ORTHODOX CHURCH OF STS. CONSTANTINE AND HELEN, MAGAZINE AND FRANKLIN STS., 1936. E. B. STRATTON, ARCHITECT

The city's first synagogue was built in Cambridgeport in 1901 on Columbia Street between Market and Hampshire Streets, now in the heart of the Cambridge Model Cities area. Built of brick by architect Nathan Douglass, Beth Israel Synagogue (Fig. 206) is organized with two front corner towers flanking a slightly projecting center gable section containing the main entrance. All windows are roundheaded, and the main entrance is surrounded by a low Romanesque arch. No longer used as a synagogue, the building is now owned by the Cambridge Redevelopment Authority.

Another Cambridgeport synagogue, Temple Ashkenaz (Fig. 207), was built nearby on Tremont Street in 1924 (S. S. Eisenberg, architect). Tall roundheaded window openings incorporate the three main entrances and dominate the yellow-brick facade. Thin vertical lines of brick, a brick cornice, and a slight gabling of the otherwise flat roof further accent the two-story center arch. Along the sides of the church, pilasters divide the wall into bays with paired arch windows.

The only Cambridgeport church constructed since the 1920's, and the only one that has needed to expand its facilities recently, is the Greek Orthodox Church of Sts. Constantine and Helen at Magazine and Franklin Streets (Fig. 208). Designed in 1935 by E. B. Stratton to replace an earlier (1917) church belonging to the same congregation, this building draws appropriately on traditional Byzantine forms for its centralized plan and its domes. The facade organization – two high square corner towers flanking a center gable with a recessed round-arched entrance – recalls the massing of the 1901 synagogue on Columbia Street, but the use of yellow and brown rough-hewn stone and the plain surface treatment give the Greek church a distinctly more massive feeling. The Magazine Street facade was extended in 1964, when Edward J. Tedesco Associates designed a complementary two-story gray-brick educational wing.

Schools

Although a majority of Cambridgeport houses and churches date from the 19th century, the district's six public schools are all of the 20th century. Three of the six, in fact, are less than fifteen years old. Continual updating of educational facilities has been part of the story of Cambridgeport – and of the city as a whole – from the beginning. While the result is beneficial to schoolchildren, the architectural historian is left with fewer surviving old schools than any other building type. Fortunately, despite the lack of physical evidence, enough records survive to reconstruct the history of Cambridgeport schools from the district's beginning to the present.

Early Wooden Schoolhouses

The first Cambridgeport school was built in 1802 at the corner of Windsor and School Streets on land donated by Andrew Bordman. It was a one-room wooden schoolhouse measuring 24 by 38 feet. Known as the Boardman School (an "a" was added to the Bordman name at some point), it lasted until 1868, when it was replaced by the present Boardman School, now the oldest surviving school building in the city (though no longer used for its original purpose).

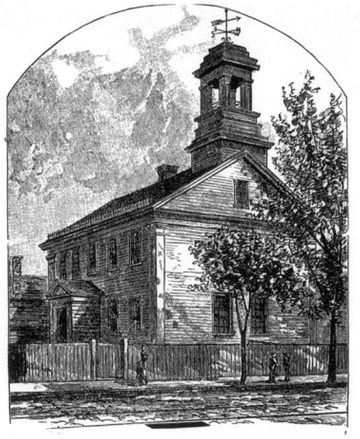
The second Cambridgeport school was the Franklin School on the south side of Franklin Street between Pearl and Magazine Streets. Built in 1809 on land donated by Judge Francis Dana, it was a two-story wooden schoolhouse with a cupola; each floor had one 20-by-30-foot classroom. The building was used until the opening of the Webster School in 1853, when it was sold at an auction and moved to Somerville.

Although one-room schoolhouses have often been romanticized, life in them was by no means always happy, as an autobiographical sketch by Richard Henry Dana, Jr. (author of *Two Years Before the Mast*) makes clear. Writing in 1842 of the Cambridgeport school he attended at the age of seven in 1822, Dana says:

> My recollections of this school are far from being pleasant. I am told there are great improvements in the art of school-keeping and that school houses and school going are much more attractive than formerly. Certainly from my own experience there was abundant room for improvement. This school house was a long low dark room, with wooden benches well cut up, walls nearly black, and a close hot atmosphere, for it was winter and there was a tight sheet iron stove with a long pipe to warm the room. I had been told that the master was very severe, and I knew that flogging was the punishment for every offense. All these things, added to the dismal and repulsive appearance of the room, made my entrance one of gloomy forebodings. (*The Journal of Richard Henry Dana, Jr.*, edited by Robert F. Lucid, Cambridge, Mass., 1968, vol. 1, p. 7.)

Although Dana was attending a private rather than a town school, the conditions he described were probably to be found in the public schools of the period.

209. MASON SCHOOL, LAFAYETTE SQUARE, 1835. DETAIL OF FIG. 20. DEMOLISHED



210. FIRST CAMBRIDGE HIGH SCHOOL BUILDING, BROADWAY AND WINDSOR STREET, 1838. DEMOLISHED 1914

The Boardman School of 1802 and the Franklin School of 1809 sufficed for Cambridgeport until the 1830's; then came a rash of school construction – four new buildings in the eight years 1835 to 1843. All were built of wood. The Mason School on Massachusetts Avenue at Lafayette Square (site of the present Lafayette Square Fire Station, Fig. 242) was the first of the four, in 1835. Two stories high and measuring 34 by 50 feet, it had a pilastered, pedimented Greek Revival facade surmounted by a cupola (Fig. 209). The Mason School was built (according to the 1845 School Committee Report) "on the modern plan," which apparently differed from the old one-room (or one-room-per-floor) plan principally in having a recitation room attached to each of the large classrooms. By separating recitation activities from the main classroom space, the "modern plan" provided an appreciably quieter study environment for the remaining students. Another school of the same period – the Bridge Schoolhouse of 1836, long demolished – apparently lacked this new feature, for it is reported in 1845 as being "a small one-story structure, 32½ feet by 22½, including wood-closet and entry." The Bridge School's location on Carleton Street between Main Street and Broadway shows that the Kendall Square area was sufficiently residential then (unlike now) to warrant a school. The fact that all four of the earliest Cambridgeport schools – 1802, 1809, 1835, 1836, – were situated within two blocks of Main Street or Massachusetts Avenue indicates the closeness of early settlement to the bridge thoroughfare. Subsequent school construction occurred further afield, as the limits of residential settlement spread.

The next school, built in 1838, was intended to serve the entire town as a Classical or high school. Located at the corner of Broadway and Windsor Street, it was a two-story, gable-roofed structure with a square cupola surmounting the gable end toward Broadway (Fig. 210). Without the cupola, it resembled a private house of the period – five-window facade (toward Windsor Street), Greek Revival corner pilasters, entablature, and pedimented gable. Within, it had a large schoolroom and a recitation room on each floor (the "modern plan"), plus an additional meeting room on the first floor. The idea of having one high school

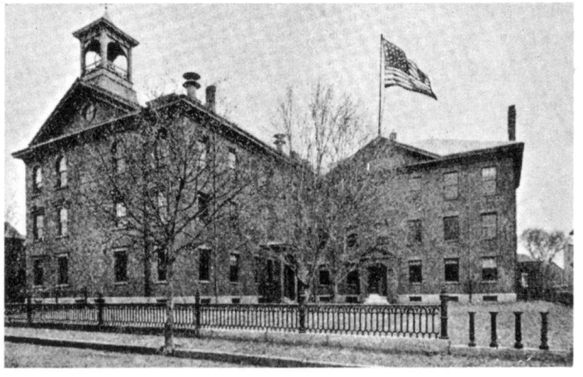
for the entire town was not successful in 1838, because people from Old Cambridge and East Cambridge objected to sending their children so far. The experiment lasted only until 1843, when high school instruction was turned over to grammar school masters in each of the three parts of town. The high school building became a grammar school known as the Broadway School (later the Sargent School). The building was demolished in 1914, and the site was subsequently taken over for the present Roberts School.

The Harvard Schoolhouse on Harvard Street opposite Essex was described in 1845 as "truly a noble building..., quite an ornament to the town." Built in 1843 on the foundations of an 1841 school that had burned, it was a two-story wooden building, 42 by 60 feet, with a cupola and a bell. The first floor had two rooms, each 20 by 40; the second floor had one large classroom, 46 by 42, with an attached recitation room 13 by 20. When a new Harvard School was opened at the corner of Inman Street and Broadway in 1871 (in a building that now serves as the City Hall Annex), the old Harvard Schoolhouse was named the Stearns School. Its site, which adjoins Sennott Park, is now a playground.

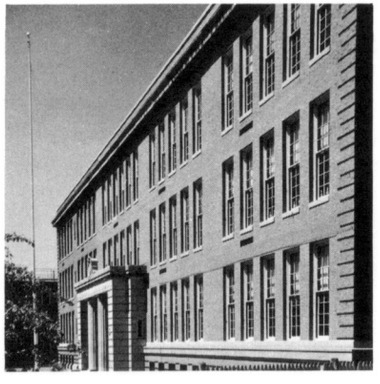
At the time Cambridge became a city in 1846, Cambridgeport had six school buildings – Boardman (1801), Franklin (1809), Mason (1835), Broadway (1838), and Harvard (1843). All were built of wood, and none had more than three classrooms. As Figures 209 and 210 show, these early school buildings hardly differed in appearance from ordinary houses, except that they had fewer interior partitions and sometimes had a cupola. School buildings were, in fact, called "schoolhouses"; the name "school" was reserved for the level of instruction carried on within – alphabet school, primary school, middle school, grammar school, or high school (the five levels existing in 1846). Graded classes were a subsequent development. In 1845, for example, the Franklin Schoolhouse contained a middle school of 70 to 80 students in its upper room, a primary school of about 70 students in its lower room, and an alphabet school of "50 to 60 small scholars" in a separate one-story building behind. The 1845 School Committee Report, from which these facts are taken, shows that although educational methods and buildings may change over the years, certain problems – such as vandalism – remain constant. Describing the Franklin Schoolhouse, the report states: "The entry is shamefully marked, dirty, and uninviting. In this, and upon the outside of the building, the inspector is shocked by disfigurations offensive to decency."

Mid-19th-Century Schools

The first Cambridgeport school built after the city's incorporation in 1846 was considerably larger than its predecessors and was built of brick. Designed by Hovey and Ryder, the Webster School of 1852 on Upton (then Webster) Street was three stories high and measured 60 by 65 feet. A pedimented wing 10 by 38 feet projected forward at the center front and contained the entrance. The original interior arrangement is not known from contemporary descriptions, but it probably consisted of a few large schoolrooms (no more than two per floor) with ancillary recitation rooms. The building was substantially remodeled in 1873 to plans by H. B. Dennison. The main part of the building was expanded forward at the corners, nearly eliminating the projection of the pedimented front wing, and the entrance was changed from the center front to the sides. The



211. WEBSTER SCHOOL, UPTON ST., IN 1890. LEFT BUILDING 1852, REMODELED 1873. RIGHT BUILDING 1885. BOTH BUILDINGS DEMOLISHED 1938



212. PRESENT WEBSTER SCHOOL. LEFT PART 1909. RIGHT PART 1939

213. WEBSTER SCHOOL PORTICO

interior was subdivided to make twelve classrooms, four per floor, and the original outdoor privy was replaced by toilets in the basement. Although these 1873 changes were considerable, the basic style of the building was retained. Details such as roundheaded windows, elaborate lintels, and strongly projecting cornices are found on other buildings of the 1850's.

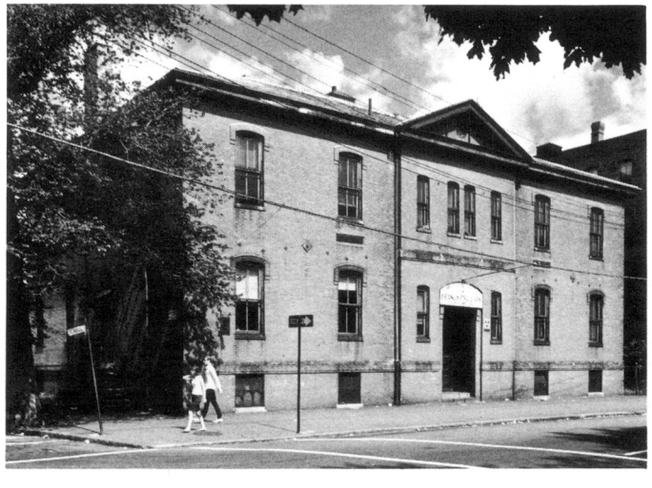
In 1885 an addition was made to the Webster School at the right rear corner of the lot, backing up to Pleasant Place. Designed by James Fogerty, the new building blended with the old in style but was less exuberant in detail. It had two rooms per floor on the first two stories and a large hall with a stage on the third story. Figure 211 shows the expanded Webster School as it looked in 1890.

Less than two decades later, further expansion was necessary at Webster, and a twelve-classroom, three-story wing was added to the left, toward Pleasant Street. Designed by Wheelwright and Haven, the 1909 addition is still in use as the left part of the present Webster School. The 1852 and 1885 buildings were demolished in 1938 to make room for the main part of today's Webster School (Fig. 212). Richard Shaw was the architect of the 1939 building, which includes the school's main entrance on Upton Street (Fig. 213) and an auditorium wing on Pleasant Place.

Following the 1852 Webster came the Allston School of 1857 on Boardman Street. Designed by C. O. Holyoke, it, too, was a substantial three-story brick structure. A description published in the January 30, 1858 *Cambridge Chronicle* indicates the interior arrangement – two schoolrooms (each with a recitation room) on the first two stories and a large grammar school room with two recitation rooms on the third story, plus another recitation room in the attic. According to the *Chronicle,* the Allston was "the best planned schoolhouse in this city." Although that statement might have been true in 1858, by 1873 the Allston required complete interior remodeling to provide additional rooms – a modification similar to the one being made at the same time at the Webster School. Educational requirements had changed sufficiently to make the once-modern plan of schoolroom-plus-recitation room obsolete. Even the remodeled Allston School apparently did not suffice, for a new brick school designed by Clarke and Crawford replaced it in 1886. The site is presently occupied by a peanut factory.

Several schools were built in Cambridgeport in the years following the Civil War. The most important historically was the Boardman School of 1868, which occupied the site of the first Cambridgeport school and which survives today as the oldest public school building in the city. Designed by H. B. Dennison, the Boardman is a two-story, hip-roofed brick structure with a pedimented central entrance bay projecting slightly from the plane of the facade (Fig. 214). The plan of four corner classrooms per floor is clearly expressed on the exterior: each classroom has four discrete windows, two on each outside wall. The individuality of the windows is emphasized by their projecting brick segmental-arched lintels. Although the Boardman's pattern of equal-sized classrooms was to continue in school architecture well into the 20th century, fenestration was to change from individual windows to pairs or groups of windows and ultimately to entire window walls. The Boardman School continued in use until the opening of the present Roberts School in 1930. It now serves as a branch library and recreation hall.

214. BOARDMAN SCHOOL, WINDSOR AND SCHOOL STS., 1868. H. B. DENNISON, ARCHITECT



A three-story brick school, the Willard, was built on Niagra Street facing Dana Square in 1870. Although no record survives, the architect may well have been the Boardman's architect, H. B. Dennison, for he was responsible for the plan for finishing the Willard's third story in 1873. Built as a primary school, the Willard survived until the opening of the present Morse School in 1957. When the building was demolished, Niagra Street was eliminated, and the combined land area became a playground adjoining Dana Square.

Although the Webster School of 1852, the Allston of 1857, the Boardman of 1868, and the Willard of 1870 were all built of brick, the city had by no means stopped building wooden schools. On the contrary, several were built in Cambridgeport in the post-Civil War period – the Gannett School of 1865 on Columbia Street between Lincoln and Cambridge Streets, the Riverside School of 1868 on Putnam Avenue opposite Hayes Street, the Tarbell School of 1882 at Howard and Callender Streets, and a new Gannett School of 1886 on Jefferson Street. The locations of these buildings indicate the spread of residential settlement to the limits of Cambridgeport; perhaps the peripheral locations had something to do with the decision to build of wood. By the 1880's, such a decision did not go unquestioned. With reference to the Tarbell School, the *Cambridge Chronicle* of December 17, 1881 stated:

> We think the city is making a mistake in building another wooden schoolhouse. The proposal now is to build such a one on Howard Street in Ward Four. If the ground is not fit to put a brick building on, it isn't fit for a schoolhouse at all. Wood in the city buildings is poor economy.

More emphatically, the *Chronicle* of May 15, 1886 had this to say about the 1886 Gannett School:

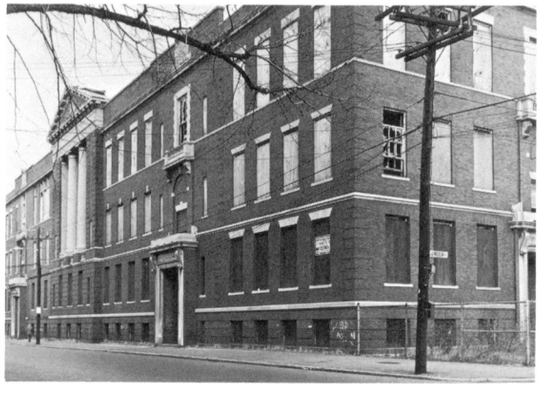
> We wish there was a law to hit on the head with a club the first member of the City Council who proposes to build another wooden schoolhouse. It is the height of foolishness, and we regret to learn that the present committee on Public Property is at it again, having decided to build the Jefferson School building of this material.

The Jefferson Street Gannett School, not surprisingly, turned out to be the last wooden school building in the city. Designed by George A. Moore, it lasted until the opening of the Harrington School in 1960. The Columbia Street Gannett School of 1865 and the Riverside School of 1868 lasted only until the first decade of the 20th century; the Tarbell School of 1882 still exists, serving now as the Cambridge Community Center (Fig. 215). James Fogerty was the architect of Tarbell, a two-story, hip-roofed wooden building with classrooms (two per floor) along the Callender Street side. Originally entered from Howard Street, the building now has a projecting entrance on Callender Street. Changes were made in 1948, when a brick gymnasium was added in back for the Cambridge Community Center (Thomas B. Epps, Inc., architects).

James Fogerty was also the architect of the first Wellington Training School, built in 1884 at the corner of Columbia and Lincoln Streets. The building was remodeled and expanded to the north in 1892 (C. H. McClare, architect), bringing it to the form shown in Figure 216. Because of its two stages of

215. TARBELL SCHOOL, CALLENDER ST., 1882. JAMES FOGERTY, ARCHITECT. NOW CAMBRIDGE COMMUNITY CENTER

216. WELLINGTON SCHOOL, COLUMBIA AND LINCOLN STS., IN 1890'S. RIGHT PART 1884. JAMES FOGERTY, ARCHITECT. REMODELED AND ENLARGED TO LEFT, 1892. C. H. McCLARE, ARCHITECT



217. WELLINGTON SCHOOL SHORTLY BEFORE DEMOLITION IN 1967. BUILDING IN THIS FORM DATES FROM 1906-1908. EDWARD T. P. GRAHAM, ARCHITECT

construction, the many-dormered mansard roof was particularly exuberant. Though picturesque, the building was apparently not satisfactory, for it was almost completely rebuilt in 1906-1908 to plans by Edward T. P. Graham. The Fogerty section was demolished and replaced by a three-story structure of fireproof construction, and the McClare section was expanded and encased to match. A raised, pedimented, columns-in-antis portico dominated the Columbia Street facade. In this form, the building lasted until 1967. Figure 217 shows it shortly before demolition.

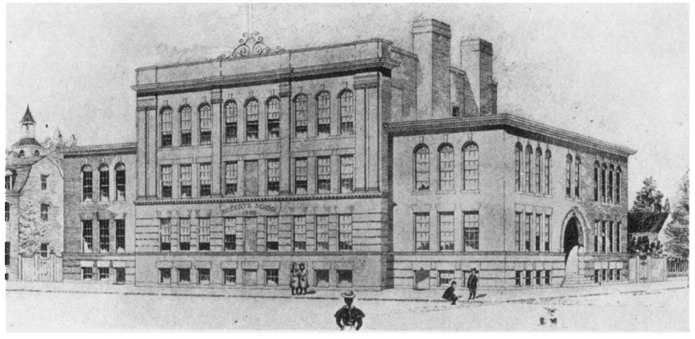
218. MORSE SCHOOL, BROOKLINE AND ALLSTON STS., 1890. GEORGE FOGERTY, ARCHITECT. DEMOLISHED 1957

Turn-of-the-Century Schools

The next group of Cambridgeport schools, built between 1890 and 1904, are the direct antecedents of the schools now in use or under construction in the district. The Morse School of 1890 was replaced by the present Morse (1955); the Parker School of 1893 and the Roberts School of 1898 were replaced by the present Roberts (1929); the Kelley School of 1902 was replaced by the Harrington School (1959); and the Houghton School of 1904 is currently being replaced by the King School. Only the Fletcher School of 1903 is still in use.

George Fogerty, son of architect James Fogerty (who died in 1889), designed the 1890 Morse School (Fig. 218). Located on Brookline Street at the corner of Allston Street, it was a massive, three-story brick structure with a gabled projection at the center of each principal facade and with a high, dormered roof and a Richardsonian arched entrance. In size, style, and general appearance it was similar to James Fogerty's Putnam School of 1887 in East Cambridge. The 1890 Morse School contained fourteen classrooms, each about 32 feet square, plus a hall 64 by 40 feet, a principal's room, and a reading room. The school was named for Cambridgeport resident Asa P. Morse, who lived nearby on Magazine Street.

A school built in 1893 at the corner of Broadway and Sixth Streets replaced the Bridge School of 1836 in serving residents of the Lower Port. Known as the Parker School, it was a two-story, pitched-roof structure designed by C. H. McClare. Its students were eventually absorbed into the Roberts School of 1929, and the building was demolished. The site, now occupied by a gas station, is part of the Kendall Square Urban Renewal Area.



219. ROBERTS SCHOOL, HARVARD AND WINDSOR STS., 1898.
GEORGE A. MOORE, ARCHITECT. DEMOLISHED 1929

220. ROBERTS SCHOOL, BROADWAY AND WINDSOR STS., 1929.
CHARLES R. GRECO, ARCHITECT

The first Roberts School, built in 1898 at the corner of Harvard and Windsor Streets, consisted of a pilastered three-story block and subsidiary two-story wings (Fig. 219). George A. Moore was the architect. For the first time in a Cambridgeport school, the roof was flat; subsequent schools in the district (except for the Kelley School of 1902) were all to dispense with an attic story. Windows in the old Roberts were grouped in threes or fours (although each was still a distinct unit); top-story windows were round-arched. The building served just thirty years before being demolished to make way for the present Roberts School, which is set back from Harvard Street and has its principal entrance at the corner of Broadway and Windsor Street (incorporating the former site of the first high school, Fig. 210). Designed by Charles R. Greco, the 1929 Roberts is a much larger structure than its predecessor – three stories high throughout and extending most of the blockfront along Windsor Street (Fig.220). Its principal stylistic features are its two rounded corners, the one at Broadway containing a ground-level entrance. In principle (three stories of classrooms in a blocklike building on a raised basement) and even in style (red brick, limestone trimmed, vaguely neo-Georgian), it is comparable to schools of the preceding period. The real break in school design came after World War II, as evidenced by the Morse and Harrington Schools of the 1950's.

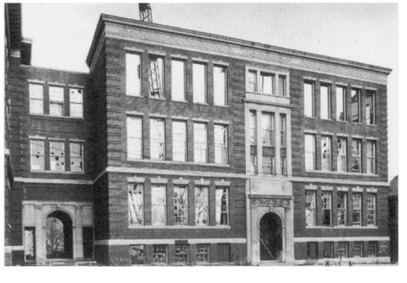
221. KELLEY SCHOOL, WILLOW ST., 1902.
A. H. GOULD, ARCHITECT. PHOTOGRAPHED
SHORTLY BEFORE DEMOLITION IN 1967

222. FLETCHER SCHOOL,
ELM ST., 1903.
H. D. JOLL, ARCHITECT

The Kelley School on Willow Street was a predecessor of today's Harrington School. Built in 1902 to plans by A. H. Gould, it was a U-shaped, three-story, hip-roofed structure. Figure 221 shows it just prior to its demolition in 1967. The Fletcher School of 1902, still in use, stands on Elm Street opposite Market Street (Fig. 222). Designed by Harry Dustin Joll, it is roughly square in plan, with projecting or receding center sections. Built along the same lines was the Houghton School of 1904 (Fig. 223), which stood on Putnam Avenue at the corner of Magee Street until January 1969. Architect George Fogerty here created a building not essentially different from his 1890 Morse School, except for the absence of a high pitched roof. An annex to Houghton fronting on Magee Street was added in 1923 to designs by Edward B. McGirr (Fig. 224). The Houghton School name came from Henry O. Houghton, long associated with the district through his Riverside Press (Fig. 298) and his house on Massachusetts Avenue (Fig. 122). The school that is replacing the Houghton will bear a new name – that of Martin Luther King, Jr., whose assassination occurred while plans for the new building were being prepared.

223. HOUGHTON SCHOOL,
PUTNAM AVE. AND MAGEE ST., 1904.
GEORGE FOGERTY, ARCHITECT.
1969 PHOTO JUST PRIOR TO DEMOLITION

224. HOUGHTON SCHOOL ANNEX,
MAGEE ST., 1923.
EDWARD B. McGIRR, ARCHITECT.
1969 DEMOLITION PHOTO



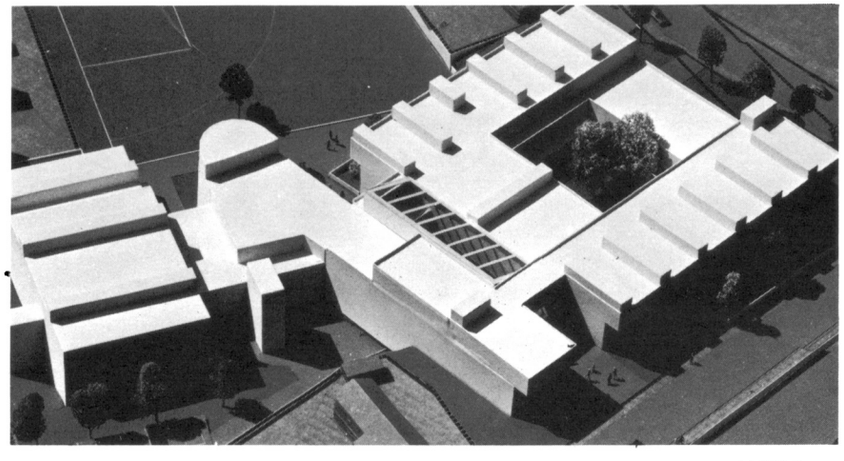
225. MORSE SCHOOL, GRANITE ST., 1955.
CARL KOCH & ASSOCIATES, ARCHITECTS

226. HARRINGTON SCHOOL, CAMBRIDGE ST., 1959.
M. A. DYER CO., ARCHITECTS

Postwar Schools

The Morse School of 1955, designed by Carl Koch and Associates with The Architects Collaborative as consultants, is radically different from all preceding Cambridgeport schools. Rather than being a three-story blocklike structure on a raised basement, it is a series of connected one-story glass-walled buildings at ground level (Fig. 225). Natural light is introduced not only through the glass of classroom walls but also through plastic skydomes in the ceilings. The different classroom wings are designed for different age levels – Kindergarten, Grades 1 to 3, Grades 4 to 5, and Grades 6 to 8. Each unit has its own outdoor play area. The core of the complex consists of facilities used not only by the school but also as a community center – auditorium, gymnasium, cafeteria, and other special-purpose rooms. The entrance is on Granite Street, toward the residential district, although the site also fronts on Memorial Drive. Through attention to scale, careful choice of materials, controlled use of light and color, and planned relationship to the out-of-doors, the architects made the Morse School a warm and inviting environment for its students and for the surrounding community.

A similar intent was behind the design of the Harrington School of 1959, located on Cambridge Street between Berkshire and Willow Streets (Fig. 226). The more built-up neighborhood, the need not to infringe too much on Donnelly Field, and the larger number of students to be accommodated (1150 compared to 550) made the solution at Harrington somewhat different from that at Morse. Harrington has two main classroom blocks at right angles to each other, each two stories high and flat-roofed; connected along the Willow Street side are the auditorium, cafeteria, and gymnasium. A branch of the Cambridge Public Library is housed in a separate one-story structure entered both from the school and from Cambridge Street; elsewhere on the site is a one-story, pitched-roof kindergarten wing. A swimming-pool facility on Berkshire Street is a 1948 design by Anderson and Beckwith, not part of M. A. Dyer Company's designs for Harrington.



227. KING SCHOOL, PUTNAM AVE., 1970. PRELIMINARY MODEL.
SERT, JACKSON & ASSOCIATES, ARCHITECTS

Both Morse and Harrington were built on existing city-owned park land, the open space of which had to be sacrificed to accommodate the low, spread-out design of the buildings. The newest Cambridgeport school – the Martin Luther King, Jr. School on Putnam Avenue – is being built on the former Houghton School site and on additional land taken through eminent domain. During construction, which is underway as this report goes to press, classes are being held in a temporary school on DeWolfe Street. Architects of the King School are Sert, Jackson and Associates – an appropriate choice, since Sert, Jackson and Gourley's Peabody Terrace (Figs. 61-62) stands directly across Putnam Avenue. A preliminary model of the King School (Fig. 227) shows it to consist of a courtyard-oriented classroom building at the corner of Magee Street and a series of community facilities extending through to Kinnaird Street.

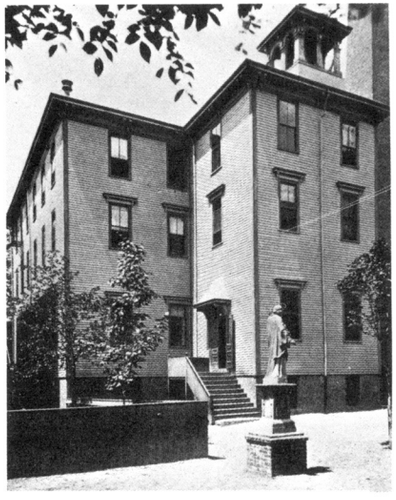
Private and Parochial Schools

Besides public schools, Cambridgeport has had a number of private and parochial schools. The school attended by Richard Henry Dana, Jr., in the early 1820's was typical of the private schools of the first half of the 19th century. Generally one-man (or one-woman) enterprises, they were more important for the character of their master than for their architecture. Dana's published recollections (quoted in part above) are vivid in their description of his master, a young minister named Samuel Barrett, and of the methods of punishment inflicted on the students. Another private school, quasi-public in nature, was the Hopkins Classical School, which existed from 1838 to 1854 on Massachusetts Avenue opposite Dana Street (the site where Henry Houghton subsequently built his house, Fig. 122). Income from a fund left to the town in 1657 by Edward Hopkins paid the tuition of nine Cambridge students at this school, which was a preparatory school for Harvard College.

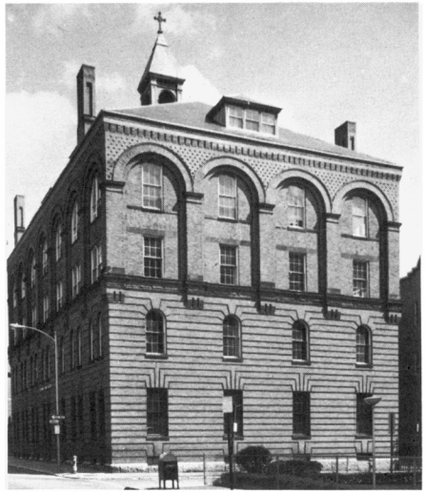
During the last century, parochial schools have played an important educational role in Cambridgeport. The oldest in the district (indeed in the entire city) is St. Mary's at Harvard and Essex Streets, founded in 1875. Its predecessor at the same location was St. Joseph's Select School for Girls, which was in operation from 1869 to 1875. St. Mary's 1875 school building was a three-story wooden structure with a projecting wing crowned by a cupola (Fig. 228). Subsequent construction included, in 1893, the four-story brick building still in use at the corner of Harvard and Essex (Fig. 229) and, in 1914, its three-story companion on Essex Street (Fig. 230), which replaced the wooden schoolhouse of 1875. The 1893 building was designed by P. W. Ford, previously responsible for St. Paul's School (1890) on Mt. Auburn Street and for Sacred Heart Church (1874) in East Cambridge. Architect of the 1914 building was Edward T. P. Graham, a St. Mary's graduate. A high school has been part of St. Mary's educational program for most of its history, and St. Mary's High has long been the only secondary school in Cambridgeport.

Other parochial schools have existed or still exist in the district, occupying church basements or other non-schoolhouse quarters. Besides St. Mary's (and St. Paul's, which is oriented more toward Harvard Square than toward Central Square), the only Cambridgeport parish to have a specially designed school building is Blessed Sacrament. Located on Cpl. McTernan Street, Blessed Sacrament School (Fig. 231) is a three-story brick structure built in 1924 to designs by Edward B. McGirr, whose Houghton Annex (Fig. 224) of the previous year is comparable in style.

Cambridgeport has seen a wide range of school architecture between the one-room Boardman Schoolhouse of 1802 and the many-faceted King School of 1969. Changing ideas about education, occurring with almost generational frequency, have combined with changing styles in architecture and new developments in building technology to make schools one of the most shortlived of building types. Probably the only thing all the Cambridgeport schools have in common is the desire of those who built them – parents, School Committee members, teachers – to have the best possible facilities for the education of their children.



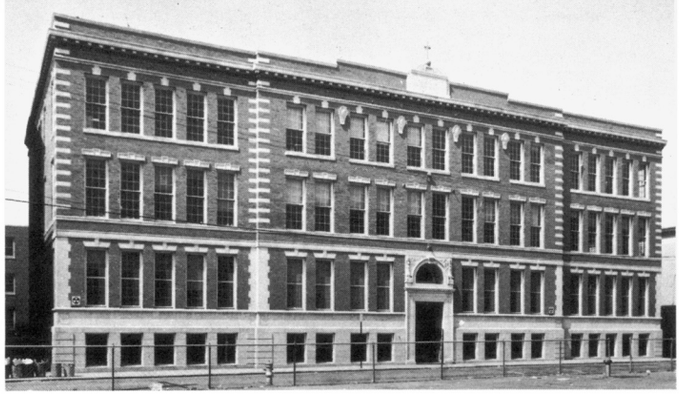
228. ST. MARY'S SCHOOL, ESSEX ST., 1875. DEMOLISHED



229. ST. MARY'S SCHOOL, HARVARD AND ESSEX STS., 1893. P. W. FORD, ARCHITECT

230. ST. MARY'S SCHOOL, ESSEX ST., 1914. EDWARD T. P. GRAHAM, ARCHITECT

231. BLESSED SACRAMENT SCHOOL, McTERNAN ST., 1924. EDWARD B. McGIRR, ARCHITECT



Civic and Institutional Buildings

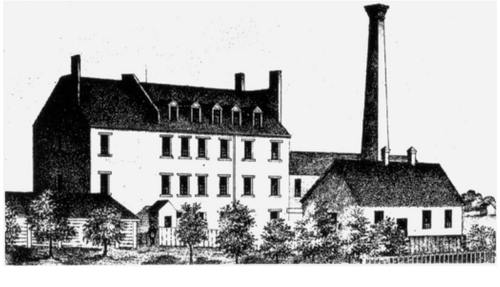
In addition to schools and M.I.T. buildings (discussed in separate sections of this report), Cambridgeport throughout its history has had a variety of civic and institutional buildings, especially in the vicinity of Central Square. This section will discuss these buildings by category, starting with almshouses, the earliest type to be built in the district. Although a few of the buildings discussed in this section are within the Mid Cambridge survey area, they are included here because of their orientation toward Central Square and Cambridgeport.

Almshouses

Almshouses or poorhouses – buildings where paupers were accommodated at public expense – are a vanished institution, having been replaced by more humane systems of welfare. During the 19th century, however, nearly every town had an almshouse, generally located in an out-of-the-way place so that land would be available for farming. The Cambridge almshouse was situated in Cambridgeport during the years 1818 to 1851 – first on Norfolk Street, then on the banks of the Charles.

The first Cambridgeport almshouse lot was an eleven-acre tract bounded roughly by Harvard, Norfolk, Austin, and Prospect Streets. The almshouse itself stood on Norfolk Street opposite Worcester. Built in 1818, it was a three-story brick structure that served until destroyed by fire in 1836; unfortunately, no visual record of the building survives. By the time of the 1836 fire, a town hall had been built nearby and the value of the land had increased; so house lots were laid out on the almshouse site, and a more remote location was sought for the town's poor.

The site chosen was a fourteen-acre tract along the river in the vicinity of Western Avenue and River Street. The three-story brick almshouse constructed there served from 1838 to 1851, when a more commodious stone almshouse in northwest Cambridge replaced it. The riverside land and buildings, sold to Little and Brown, were occupied in 1852 by the printing business of Henry O. Houghton and became the nucleus of the Riverside Press. The 1838 almshouse still survives, though it is all but unrecognizable under later additions and alterations; a vignette of Riverside published in 1854 (Fig. 232) shows it to have been a gable-roofed, dormered structure with paired chimneys at one end.



232. 1854 VIEW OF RIVERSIDE, CAMBRIDGEPORT, SHOWING 1838 ALMSHOUSE AS NUCLEUS OF RIVERSIDE PRESS

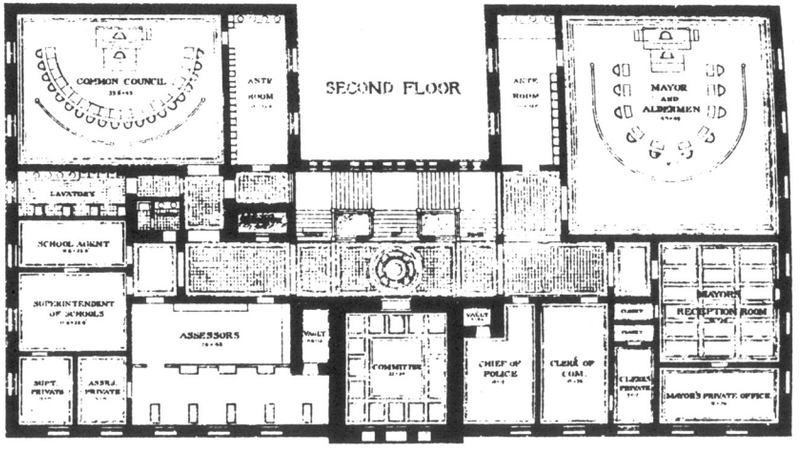
Town and City Halls

In 1831 a decision was made to move the seat of town government from Old Cambridge to Cambridgeport. The corner of Norfolk and Harvard Streets (part of the almshouse lot) was chosen as the site of the new town house, which was completed in 1832. Asher Benjamin was the architect of this wooden Greek Revival structure, which measured 46 by 76 feet and had at each end a portico of six fluted Doric columns with entablature and pediment. Most of the interior was taken up by a large hall that occupied the full width and height of the two-story building. Town meetings were held here from 1832 until Cambridge became a city in 1846, at which time the building became Cambridge's first city hall. It served as such until 1853, when it was destroyed by fire, fortunately without loss to the city records stored there. No illustration of this important civic building is known to exist.

In 1854 the city government moved to the recently constructed Cambridge Athenaeum at the corner of Massachusetts Avenue and Pleasant Street (Fig. 233). Designed by Henry Greenough, the Athenaeum was a two-story, hip-roofed brick structure built in 1851. The second story, higher than the first and lighted by tall roundheaded windows in recessed arches, contained a large public hall and subsidiary rooms; the first story was designed for stores and offices. As an institution, the Cambridge Athenaeum was similar to the Boston Athenaeum and others that have survived from the 19th century; its purpose, in the words of Edmund T. Dana's deed of gift for the land, was to conduct "a Lyceum, public Library, Reading-room, Lectures on scientific and literary subjects," and to promote "other kindred objects." At first the city rented space from the Athenaeum's directors, but the building proved so suitable as a city hall that the city purchased it in 1858, at the same time absorbing the Athenaeum library, which became the nucleus of the Cambridge Public Library. The city remodeled the interior of the Athenaeum building in 1858 and again in 1867 and used it until the opening of the present City Hall in 1890. Thereafter the building accommodated the Prospect Union, a social-service educational organization, before being demolished in 1922 to make way for a nondescript block of stores.

233. CAMBRIDGE ATHENAEUM, MASSACHUSETTS AVE. AND PLEASANT ST., 1851 HENRY GREENOUGH, ARCHITECT. USED AS CAMBRIDGE CITY HALL, 1854-1890

234. CAMBRIDGE CITY HALL, MASSACHUSETTS AVE. BETWEEN BIGELOW AND INMAN STS., 1888. LONGFELLOW, ALDEN & HARLOW, ARCHITECTS



235. CITY HALL. PLAN OF SECOND FLOOR, PUBLISHED 1888 IN *AMERICAN ARCHITECT AND BUILDING NEWS*

236. CITY COUNCIL CHAMBER

The present City Hall (Fig. 234) was a gift of Frederick H. Rindge, who also donated the Public Library and the Manual Training School. Designed in 1888 by Longfellow, Alden and Harlow, who won a competition for the design, the building is situated on the north side of Massachusetts Avenue between Inman and Bigelow Streets, diagonally across from the Athenaeum site. Set back from the street on rising ground, City Hall is a monumental three-story structure focusing on a 158-foot-high bell-and-clock tower. The building was designed to accommodate all departments of city government and was U-shaped in plan (Fig. 235). The two principal chambers, one for the Mayor and Aldermen, the other for the Common Council, were on the second floor in the rear wings; each was two stories high and had a gallery at the third-story level. The Common Council chamber in the northwest wing was subdivided after the city changed from bicameral to unicameral government, but the Mayor and Aldermen's chamber (now the City Council chamber) survives in its original form(Fig. 236).

City Hall is an excellent example of Richardsonian Romanesque style, so much in vogue for public buildings in the 1880's. (The *Cambridge Tribune* in 1888 described City Hall as being "of modern Romanesque architecture.") Inspired by the work of H. H. Richardson, this style is characterized as much by solidity and contrasting colors of masonry as by specifically Romanesque details, though these (in the form of round-arched openings and lineal vegetal carvings) are present as well. The masonry of City Hall is of beige Milford granite liberally trimmed with Longmeadow brownstone, creating an earthy polychromy still evident today because of judicious cleanings (the most recent in 1967).

237. MUNICIPAL BUILDING, WESTERN AVE. AND GREEN ST., 1933. PUTNAM & COX, ARCHITECTS

238. CENTRAL SQUARE POST OFFICE, MASSACHUSETTS AVE. AND PLEASANT ST., 1933. CHARLES R. GRECO, ARCHITECT

Though not a city hall as such, the Municipal Building at Western Avenue and Green Street serves a similar function in accommodating city government – in this case, principally the Police Department. Occupying the site of an 1873 police station and firehouse, the present structure, designed by Putnam and Cox, was built in 1933 (Fig. 237). Reminiscent of Parisian architecture in the way it responds to its angled corner site and in its suggestion of a mansard roof, the buff-colored brick building has vertical tiers of metal-framed windows, decorative plaques and grillework, and other features of formalistic public architecture of the 1930's. Besides the Police Department's garage, jail, and other facilities, the four-story building contains quarters for the Election Commission and for an American Legion post and a Veterans of Foreign Wars post.

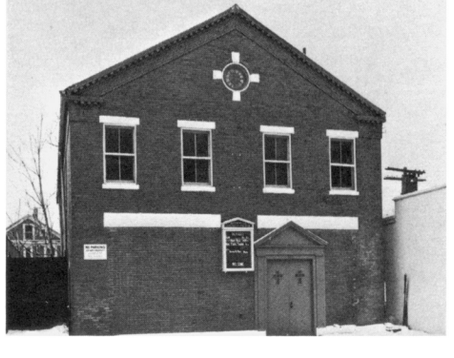
Post Office

The Central Square Post Office, located across from City Hall at Massachusetts Avenue and Pleasant Street, is the city's main postal facility. Before its construction in 1933, the post office rented space in commercial buildings, as the Inman Square and Kendall Square branches still do. J. D. Leland and Company, architects and engineers, and Charles R. Greco, architect, collaborated on the design of the Central Square Post Office (Fig. 238), which is similar to the Municipal Building in being of the formalistic school of public architecture common during the Depression. Though bound by Classical tradition (particularly in its rigidly symmetrical, tripartite facade and in its suggestion of pilasters and entablature), the building uses Classical elements in an unorthodox, almost self-conscious way. Capitals are not really capitals, though those over the central pilasters (which are scalloped, not fluted) have Greek key motifs in a kind of parody of Ionic. Granite ashlar masonry walls give a feeling of solidity and permanence, important in a public building constructed during the uncertain Depression years. Behind the formal facade lies an interior designed to be functional and efficient. Attached to the two-story public-access block along Massachusetts Avenue is a much larger one-story-plus-basement wing with unobstructed work areas and a range of truck-loading docks along Green Street.

Firehouses

Because of the need for quick access to the scene of a fire, firehouses are normally scattered throughout a community rather than consolidated at one central point. In being located to serve particular districts, firehouses are like schools, but they differ from schools in being a much more stable architectural type. Whereas Cambridgeport schools have been replaced with almost generational frequency, its firehouses have continued in use for extended periods. The four existing Cambridgeport firehouses, for example, all date from the 19th century; even the changeover from horse-drawn fire engines to motorized equipment did not require new architectural expression.

The Cambridge Fire Department was established in 1832; before that, volunteer societies served the purpose. One of the first firehouses built for the new department still exists on Main Street near Windsor (Fig. 239). Built in 1832 and remodeled in 1846, it was used as a firehouse until 1894; since 1916, it has served as the Christian Mission Holiness Church. The lintels of the two large front doors are still visible, though the openings themselves have been bricked up.



239. FIREHOUSE (NOW CHRISTIAN MISSION HOLINESS CHURCH), MAIN ST. NEAR WINDSOR ST., 1832

240. PORTLAND STREET
FIREHOUSE, 1887.
JAMES FOGERTY, ARCHITECT

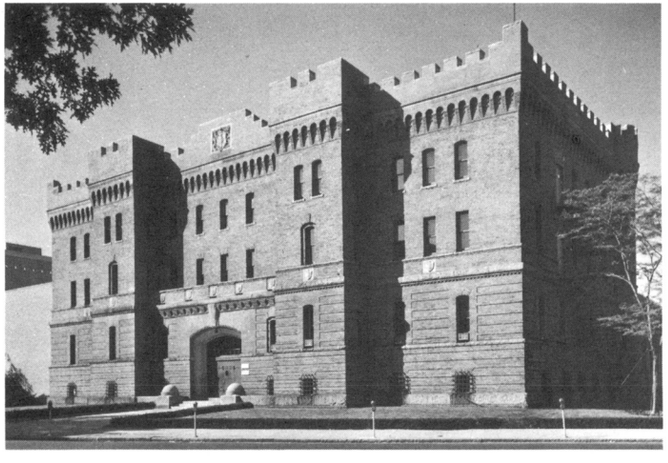
241. RIVER STREET
FIREHOUSE, 1890.
GEORGE FOGERTY, ARCHITECT

The standard Cambridgeport firehouse is two stories high and two or three bays wide, with or without an attached tower; the four existing firehouses, constructed during the years 1887 to 1894, all follow this form. Although they vary somewhat in roof type and degree of ornamentation, their similarities are more important than their differences. The first of the four was the Portland Street firehouse (Fig. 240), built in 1887 (James Fogerty, architect). Three years later James Fogerty's son George designed the River Street firehouse (Fig. 241). In 1893 came Condon and Greco's Lafayette Square firehouse (Fig. 242), the largest of the four (three bays wide instead of two) and the only one with a tower. Finally, the Main Street firehouse at the corner of Dock Street dates from 1894 (Fig. 243; R. J. Fitzgerald and S. D. Mitchell, architects). A portion of Cambridgeport is served by the Inman Square firehouse, but the building itself – a 1912 design by Newhall and Blevins – is in the Mid Cambridge survey area (see illustration in *Mid Cambridge*, page 44).

242. LAFAYETTE SQUARE
FIREHOUSE, 1893.
CONDON & GRECO, ARCHITECTS

243. MAIN STREET FIREHOUSE,
1894. R. J. FITZGERALD AND
S. D. MITCHELL, ARCHITECTS

244. PUBLIC WORKS GARAGE, HAMPSHIRE ST.,
1938. CHARLES R. GRECO, ARCHITECT



245. CITY ARMORY (NOW M. I. T. GYMNASIUM), MASSACHUSETTS AVE. AND
VASSAR ST., 1902. HARTWELL, RICHARDSON & DRIVER, ARCHITECTS

Miscellaneous Civic Buildings

Other civic buildings in Cambridgeport include a public works garage, an armory, and several public recreation buildings. The garage (Fig. 244), located between Tremont and Norfolk Streets north of Hampshire, was designed in 1938 by Charles R. Greco; it replaces a two-story brick stable and a series of wooden sheds dating back to the time when the city had teams of horses instead of trucks to do its street cleaning and other heavy work. An earlier Public Works garage along Hampshire Street was built in 1921.

The armory (Fig. 245), now M.I.T.'s duPont Center Gymnasium, is located at Massachusetts Avenue and Vassar Street. Designed by Hartwell, Richardson and Driver in 1902, it is a crenellated, fortress-like brick structure with a large, arch-roofed drill hall in back. Its style is related to that of other armories of the period; apparently the medieval castle conjured up an appropriately secure image. The Cambridgeport armory is also stylistically compatible with its principal neighbors at the time it was built – the similarly castellated Metropolitan Storage Warehouse across Vassar Street (1895; Fig. 320) and Riverbank Court on Memorial Drive (1900; Fig. 54).

246. CAMBRIDGE FIELD PARK SHELTER, 1896. OLMSTED, OLMSTED & ELIOT, LANDSCAPE ARCHITECTS, DEMOLISHED 1959. SEE ALSO FIG. 371

247. BEACH AT CAPTAIN'S ISLAND, 1899

On the site of Harrington School stood the former Cambridge Field Park Shelter (Fig. 246), built in 1896, probably to designs by Olmsted, Olmsted and Eliot, landscape architects of the field. In 1899, the same firm, then known as Olmsted Brothers, designed a stone locker house at Captains Island (the present Magazine Beach), the first of a series of recreational buildings at that location. Fig. 247 shows that the Charles River was then fit for swimming; subsequent pollution has required construction of a swimming pool to take the place of river bathing. The present Metropolitan District Commission bath house-swimming pool complex (Fig. 248) was designed in 1950 by John M. Gray Company. Another Cambridgeport swimming facility, located on Berkshire Street and now incorporated in the Harrington School complex, was a 1948 design by Anderson and Beckwith.

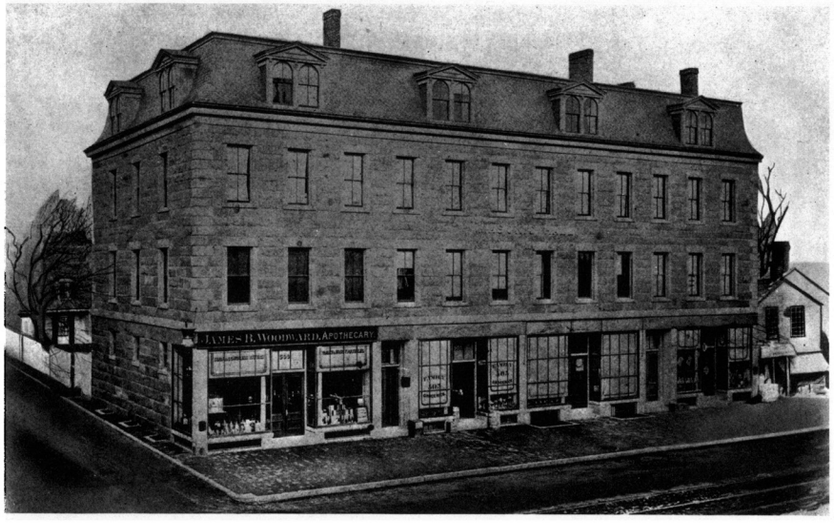
248. M. D. C. BATH HOUSE, MEMORIAL DRIVE, 1950. JOHN M. GRAY CO., ARCHITECTS

Halls and Association Buildings

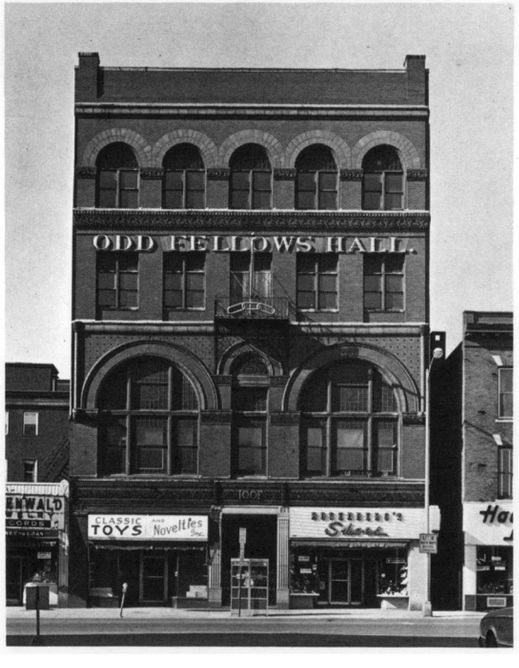
Halls to accommodate group functions – meetings, dances, concerts, receptions, and the like – played an important role in 19th-century community life. Generally they were located on the upper floors of commercial buildings, where advantage could be taken of otherwise unused space under the roof; rent-producing stores usually occupied the ground floor. Halls sometimes belonged exclusively to specific groups, though more frequently they were available for general public rental. Not surprisingly, the most architecturally interesting hall buildings were those constructed for particular organizations rather than those built on speculation.

Masonic Hall at Massachusetts Avenue and Temple Street (present site of the Cambridgeport Savings Bank building, Fig. 270) is a good example of a mid-19th-century hall building. Designed by N. J. Bradlee and built in 1865, the block was three stories high with a mansard roof (Fig. 249). Four stores occupied the ground floor, offices occupied the second floor, and the remainder of the building was used by the Masons. Though not expressed on the exterior, a large hall (measuring 34 by 57 feet and 22 feet high) took up part of the top two floors. Masonic Hall was unusual in being constructed of granite, which in this case came from warehouses being demolished on Long Wharf in Boston.

More expressive of interior functions and divisions, and more typical in being built of brick, is Odd Fellows Hall on Massachusetts Avenue opposite Norfolk Street (Fig. 250). Here, the principal hall (measuring 40 by 50 feet and 25 feet high) occupies the front of the second and third stories, lighted by large arched windows. This major room, which together with its balcony seats 500 persons, was designed as a public hall; private lodge rooms and other facilities for the exclusive use of the Odd Fellows were on the upper floors of the building. Two stores occupy the ground floor, except for the central entrance to the rooms upstairs. Built in 1884, Odd Fellows Hall was designed by Hartwell and Richardson, who had previously designed the First Baptist Church nearby in Central Square (Fig. 191). Varieties of pressed and molded brick combine with terra-cotta friezes and other decorative elements to make the facade of Odd



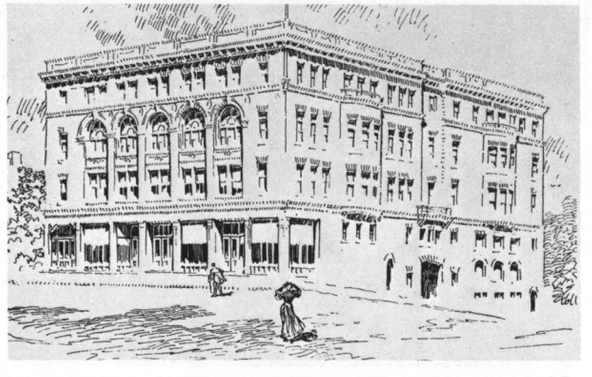
249. MASONIC HALL, MASSACHUSETTS AVE. AND TEMPLE ST., 1865. N. J. BRADLEE, ARCHITECT. DEMOLISHED 1904



250. ODD FELLOWS HALL, 536 MASSACHUSETTS AVE., 1884. HARTWELL & RICHARDSON, ARCHITECTS

Fellows Hall one of the liveliest and most ornamental in Cambridgeport – one of the best preserved as well, except for the inevitable remodeling of ground-floor stores. All decorative emphasis is on the facade; behind the embellished front, the building is a simple 50-by-90-foot rectangle five stories high.

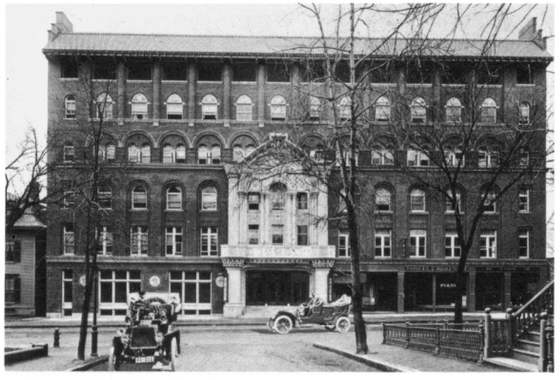
251. Y. M. C. A., CENTRAL SQUARE. OLDER BUILDING REMODELED 1885 FOR Y. DEMOLISHED 1926



252. Y. M. C. A., MASSACHUSETTS AVE. AND SELLERS ST., 1896. HARTWELL, RICHARDSON & DRIVER, ARCHITECTS

The Cambridge Y.M.C.A. and Y.W.C.A. have long occupied buildings in or near Central Square. Organized in 1883, the Y.M.C.A. moved into its first home in 1885 – an older wooden commercial building remodeled especially for the Y (Fig. 251). Stores remained on the ground floor, but the upper floors were made over for the Y's purposes, some of the principal rooms being a parlor, a reading room, and a top-floor gymnasium utilizing space under the mansard roof. The building stood on the site of the Central Square Building (Fig. 273), for which it was demolished in 1926.

Meanwhile, the Y.M.C.A. had moved to its present site at the corner of Massachusetts Avenue and Sellers Street. The first building there was constructed in 1896 to designs by Hartwell, Richardson and Driver. It was four stories high, was built of brick, and had two-story arched window openings in the center portion of the facade (Fig. 252). In 1910 the building was more than



253. Y. M. C. A. AFTER 1910 EXPANSION BY NEWHALL & BLEVINS

254. Y.M.C.A. IN 1968

doubled in size, a fifth story surmounted by a roof loggia was added, and a new terra-cotta entrance portal became the dominant feature of the facade (Fig. 253). Newhall and Blevins were the architects of the expanded building, which is still in use today, except that the most striking architectural elements (the tile-roofed loggia and the entrance portal) have unfortunately been removed (Fig. 254).

At the same time that the Y.M.C.A. was being expanded, the Cambridge Y.W.C.A. (founded 1891) was putting up its present building at Temple and Austin Streets (Fig. 255). Designed, like the 1910 Y.M.C.A., by Newhall and Blevins, it is a U-shaped, stucco-walled, villa-like structure. Its principal feature is a lofty, twin-towered roof loggia, fortunately still intact. People in the early years of the 20th century believed strongly in the healthfulness of fresh air; sleeping porches were a part of most new houses and apartments, and open loggias such as those on Newhall and Blevins's Y's were a logical corollary. In addition, especially in the case of the Y.W., the loggia is stylistically appropriate for the Italian-villa derivation of the design.

Several additions have been made to the Y.W.C.A. over the past two decades by Anderson, Beckwith and Haible (or their predecessor firm, Anderson and Beckwith). In 1953 they designed a health-education wing set back from Temple Street and connecting with the main building; in 1961, a swimming-pool block further along Temple Street; and in 1964, a square, five-story dormitory wing on Austin Street (Fig. 256).

255. Y. W. C. A., TEMPLE ST., 1910. NEWHALL & BLEVINS, ARCHITECTS

256. Y. W. C. A. DORMITORY, AUSTIN ST., 1964. ANDERSON, BECKWITH & HAIBLE, ARCHITECTS

257. SALVATION ARMY CITADEL, LAFAYETTE SQUARE, 1969. SYMMES, MAINI & McKEE, ARCHITECTS

Another association that has occupied the same site near Central Square for over half a century is the Salvation Army. Rather than just remodeling or adding to its blocky three-story original building (designed in 1912 by Brainerd and Leeds), the Cambridge Citadel has constructed an entirely new building on an expanded site. Completed in 1969, the new Salvation Army headquarters is a long, low, two-story brick structure designed by Symmes, Maini and McKee (Fig. 257). Though not particularly urban in scale, it adds architectural interest to an otherwise barren Lafayette Square, next door to one of the Cambridgeport firehouses (Fig. 242).

Commercial Buildings

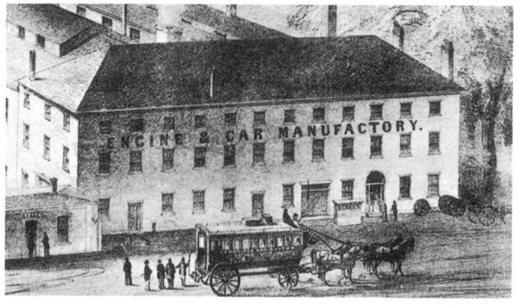
Cambridgeport commercial buildings overlap more categories than do other building types, since commercial uses are frequently combined with other uses – residential, institutional, or industrial. Despite this variety, it is possible to make certain generalizations about Cambridgeport commercial architecture and to illustrate both combined-usage and purely commercial structures.

Cambridgeport has always been commercially active, unlike Mid Cambridge, which is almost exclusively residential. Commercial buildings followed soon after the opening of the West Boston Bridge in 1793; in fact the very first building in Cambridgeport, put up the month after the bridge opening, was a store erected by Robert Vose and Royal Makepeace near the western end of the bridge causeway. (The precise location was on Main Street opposite Osborn Street, now part of the site of New Towne Court.) Several other stores were built in the vicinity in the next few years, along with houses and a tavern. None of these early buildings survives, but descriptions and views of slightly later structures indicate that they were of the three-story, hip-roofed Federal type, with small, nearly square windows under the eaves – in short, not substantially different in appearance from houses of the period, except perhaps in treatment of entrances.

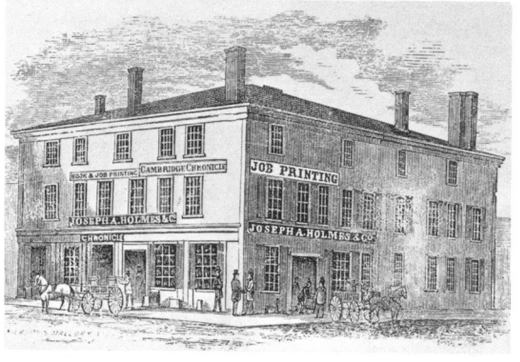
A mid-19th-century view of a brick store built about 1815 at the corner of Main and Osborn Streets (Fig. 258) indicates the difficulty of distinguishing one building type from another in this period. Tax records treat the building as both a house and a store. The house would presumably have occupied the right-hand five bays (with a fanlighted, sidelighted entrance), and the store would have occupied the left-hand seven bays (with two simple rectangular doors). Between the two sections, on the first story, was what appears to have been an open passageway leading through to the back of the lot.

A "store" in the early 19th century was more what would be considered a warehouse today – a place where goods are stored. There was little distinction between wholesale bulk storage and retail display and sale; furthermore, there were far more raw goods than manufactured items. Especially in the pre-railroad era, commercial wagon routes from inland towns passed through Cambridgeport; the Port "stores" were logical dropping-off points because of their convenient location near the bridge to Boston, with a consequent avoidance of bridge tolls.

An old woodcut (Fig. 259) shows a frame commercial building near Central Square as it looked when the *Cambridge Chronicle* occupied it from 1846 to 1854. The front portion of the structure was built about 1800; it was three stories high and hip-roofed, with small third-story windows but with larger ground-story windows than were present on the 1815 store illustrated in Fig. 258. These shop windows may have been the result of later alterations, or if original they could be an indication of the architectural difference between a warehouse-type "store" and a retail outlet. A grocer, Joseph A. Holmes, owned the building after 1842; tax records before his time refer to the 1800 building variously as a barn, "other building," store, or house, indicating the futility of trying to put such structures into too rigid categories. The Holmes-*Chronicle* block was substantially altered in 1886, when (in the words of the *Cambridge Tribune*) "large plate glass windows" were put in to "take the place of the old-fashioned small-paned sashes." Subsequent alterations made the original building unrecognizable, though a portion of it may still exist behind the facades at 636-638 Massachusetts Avenue.



258. BRICK STORE, MAIN AND OSBORN STS., 1815. DETAIL OF FIG. 289. SEE ALSO FIG. 290. DEMOLISHED 1882

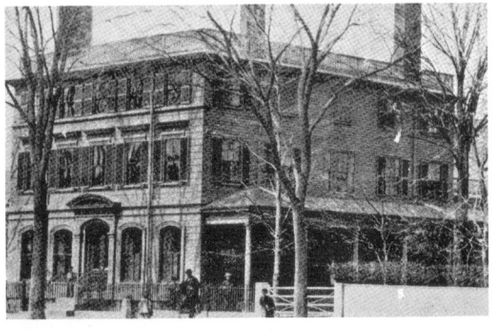


259. HOLMES-*CHRONICLE* BLOCK, 636-638 MASSACHUSETTS AVE., CA 1800. DEMOLISHED

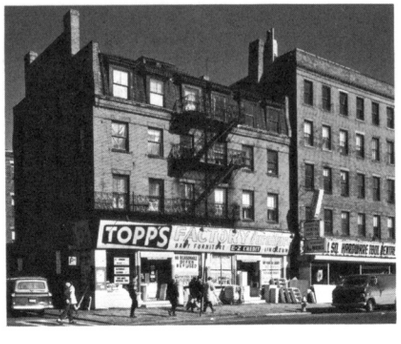
260. 452-458 MASSACHUSETTS AVE., 1896

Another early Central Square commercial block survives in part at 452-458 Massachusetts Avenue (Fig. 260). Originally extending to the corner of Brookline Street, this three-story, Federal-style brick block had two hip-roofed

261. 653-655 MASSACHUSETTS AVE., COR. PROSPECT ST., 1814. 1968 PHOTO



262. 653-655 MASSACHUSETTS AVE. AFTER FACADE REMODELING, CA. 1860



263. 463-467 MASSACHUSETTS AVE., COR. DOUGLASS ST., 1849. MANSARD ADDED 1886

264. WAITE BUILDING, INMAN SQUARE, 1855-1857. SEE ALSO FIG. 373

end units (with five-window facades facing the side yards) and four narrower, gable-roofed, row-house-type units between. Referred to in tax records as "other buildings" and in deeds as a "range of brick stores" or "the brick block called South Row," the group was built in 1806 by Judge Francis Dana on part of his extensive Cambridgeport landholdings. Apparently used at an early date for residential as well as commercial purposes, the buildings followed a common pattern – stores or shops on the ground story, living quarters above. The right-hand four units of South Row were demolished about 1930 to make way for the block of one-story stores presently on the site (see Fig. 275). The remaining units have had their facades considerably altered (new storefronts, changed fenestration, stucco veneer), but their basic mass survives, as does the five-window side facade of the left-hand unit, although the ground-story openings, including an elliptical-arched center entrance, have been bricked up.

Right in Central Square, at Massachusetts Avenue and Prospect Street, stands another early commercial-residential structure, also considerably altered (Fig. 261). This three-story, hip-roofed wooden building (now aluminum-sided) was built in 1814 as the home and leather-dressing shop of Thomas Dowse, an art collector and benefactor of the Cambridge Public Library. After Dowse's death in 1856, the Massachusetts Avenue facade was remodeled with rusticated siding, segmental-arched ground-story windows, two-over-two sash, and other newly fashionable features, though the side facade (which faced an open yard now occupied by another building) retained its Federal-style characteristics (Fig. 262). In its remodeled form, the Dowse house had offices on the ground floor, including one occupied in 1861 by the Harvard Bank, forerunner of the present Harvard Trust Company. Subsequent changes have all but obscured the building's character, but the third-story window openings and the hip roof (now fortunately shorn of billboards) are visible evidence of its previous style.

At the east corner of Massachusetts Avenue and Douglass Street, a commercial location since early Cambridgeport days, Royal Douglass in 1849 built a three-story brick structure with granite first-story front. Listed as a "store block" in tax records, the building was referred to as a confectionary factory in a contemporary *Cambridge Chronicle*. Probably there was also residential occupancy of the upper floors, as there is today (above a furniture store). A remodeling in 1886 gave the building a mansard roof, but the paired chimneys on the end wall, the plain brick frieze under the eaves, and the granite pillars on the first-story front are Greek Revival characteristics compatible with the building's 1849 date (Fig. 263).

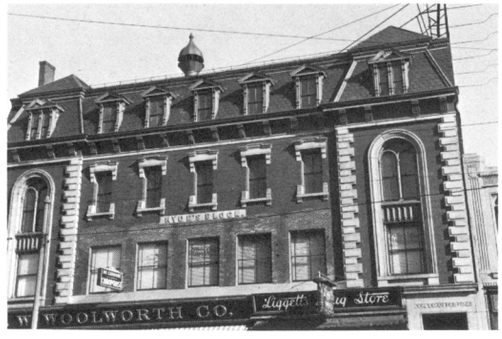
A more interesting mid-century commercial building stands at the triangular intersection of Cambridge and Hampshire Streets, in Inman Square (Fig. 264). Built for Charles Waite in 1855-57, the building was first listed in tax records as "2 brick stores," later simply as a "brick block." Three stories high with a hip roof, it follows the shape of its triangular site (known as a "heater"), with a curved bay at the intersection. Greek Revival characteristics include a plain brick frieze and brick dentil cornice. The window sash have been changed, and the ground story (now occupied by a drug store) is completely altered. A two-story commercial building with stores below and offices above was added at the rear in 1916 (Newhall and Blevins, architects).

265. MIDDLESEX BANK BUILDING, INMAN SQUARE, 1874

Diagonally across from the Waite building in Inman Square is a handsome brick structure occupied by the Middlesex Bank (Fig. 265). Built in 1874, the three-story building (listed as a "block of stores" in early tax records) has granite pillars dividing the ground floor into store fronts, which now have inappropriate small-paned sash – an attempt to be "Colonial" on a Victorian building. The upper floors, with their two-over-two sash, projecting stone sills and lintels, and bracketed cornice peaking up at the center of each facade, are entirely original.

From the same period, but more elaborate in style and detail, were two commercial buildings in Central Square – Hyde's Block (1868) on the site of the present Woolworth's and the Grant Building (1873) on the site of Central Plaza. Hyde's Block (Fig. 266) was noteworthy for its French Second Empire characteristics, particularly its symmetrical facade framed by end pavilions carried up into the mansard roof. The brick building was elaborately trimmed with granite – corner quoins on the end pavilions, two-story arched openings for the pavilion windows, and blocky projecting sills and lintels on the windows of the center section. (The second-story windows, as well as the storefronts, had been remodeled by the time the photograph published here was taken in the 1930's.) The neo-Georgian Woolworth's building that has occupied the site since 1950 seems bland by comparison, although it has a similar composition of end pavilions flanking a center section (Fig. 267). The Grant Building, High Victorian Gothic in style, had brick as well as stone ornament and a lively, varied surface treatment, again within a symmetrical composition (Fig. 268). Spiky iron cresting originally embellished the parapet atop the facade.

Typical of 1880's style as well as of the sort of mixed usage that could occur in commercial buildings is the towered stone structure at the corner of Massachusetts Avenue and Inman Street (Fig. 269). Illustrated in *Mid Cambridge* (p. 96) as an example of the work of local architect John A. Hasty, the former Cambridge Mutual Fire Insurance Company building has shops on the ground floor, offices (entered from Massachusetts Avenue) on the second floor, and apartments (entered from Inman Street) on the third and fourth floors. Built at the same time as adjacent City Hall, the Hasty building is also Richardsonian Romanesque in style, with round-arched ground-story openings (some now altered) and beige and brown polychrome masonry. However, its composition is asymmetrical rather than symmetrical, and its detailing is fussier than that of City Hall.



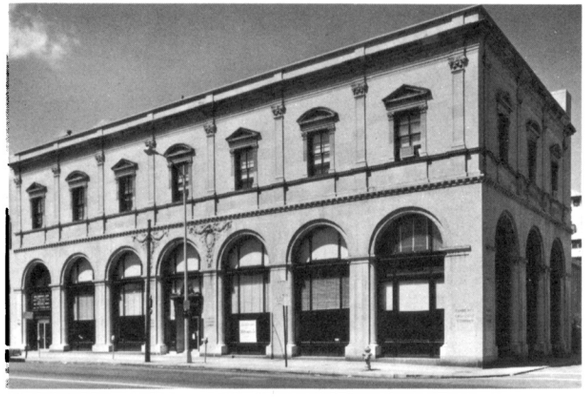
266. HYDE'S BLOCK, 633-639 MASSACHUSETTS AVE., 1868. DEMOLISHED 1950

267. WOOLWORTH'S, 631-641 MASSACHUSETTS AVE., 1950. REPLACES HYDE'S BLOCK

268. GRANT BUILDING, MASSACHUSETTS AVE. AND PROSPECT ST., 1873. DEMOLISHED 1967

269. 763 MASSACHUSETTS AVE., COR. INMAN ST., 1888. J. A. HASTY, ARCHITECT

270. CAMBRIDGEPORT SAVINGS BANK BUILDING, 689 MASSACHUSETTS AVE., 1904. W. E. CHAMBERLIN AND C. H. BLACKALL, ARCHITECTS



271. 719 MASSACHUSETTS AVE. (ORIGINALLY CAMBRIDGE GAS LIGHT CO. BUILDING), 1912. SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS

272. *CHRONICLE* BUILDING, 614-620 MASSACHUSETTS AVE., 1908. NEWHALL & BLEVINS, ARCHITECTS

The early 20th century brought to Central Square several white, Renaissance-inspired business buildings, two of the handsomest of which are located at Massachusetts Avenue and Temple Street. On the site of N. J. Bradlee's 1865 granite Masonic Hall (Fig. 249) stands the Cambridgeport Savings Bank Building, built in 1904 to designs by W. E. Chamberlin and C. H. Blackall. Though the cornice has been simplified and some changes have been made at the entrance, this white marble-clad structure is still the very image of a Classical, turn-of-the-century bank (Fig. 270). Appropriately, it is shared by the Cambridgeport Savings Bank and the Harvard Trust Company, both of which had their origins in 19th-century Cambridgeport. Across Temple Street, the former Gas Light Company Building is more specifically Italian Renaissance in derivation. Designed by Shepley, Rutan and Coolidge in 1912, the two-story limestone structure has seven arcaded bays on Massachusetts Avenue and three on Temple Street (Fig. 271). The massing resembles that of Renaissance loggias such as Michelangelo's on the Capitoline Hill in Rome, though the arcades here are glazed rather than open.

Full-height ogival arches characterize the facade of the four-story *Chronicle* building at 620 Massachusetts Avenue (Fig. 272). Designed by Newhall and Blevins in 1908, this facade has white terra-cotta ornament against a buff-colored brick background. Small terra-cotta panels were less expensive than stone and provided more ornament for the money. Despite these advantages, this form of decoration was relatively short-lived, being in vogue principally in the decade or two preceding World War I. The equivalent after the war was cast stone – panels or blocks of concrete intended to resemble real stone. The advantage of cast stone over terra cotta was that the individual elements could be made in larger sizes and did not have to be glazed or baked; unfortunately, however, the material has not weathered as well.

Cast stone was extensively used on the city's first "skyscraper," the Central Square Building (Fig. 273). This ten-story office structure by Blackall, Clapp and Whittemore was built in 1926. As on other urban office buildings of the period, the structural steel skeleton is obscured by cast-stone cladding, which forms the principal decoration (along with metal window frames and highly ornamented spandrels). Though not reflecting any interior functional change, the fourth story is set off by horizontal as well as vertical divisions, providing a break between bay-window and individual-window fenestration patterns.

A building comparable in size and use, though without superficial decoration or artificial attempts at variety, is Central Plaza (Fig. 274) across Massachusetts Avenue. Replacing the Grant Building (Fig. 268), this square, thirteen-story, reinforced-concrete structure with attached two-story wing along Prospect Street was designed by Eduardo Catalano and Associates and built in 1967. Its presence in Central Square is a welcome one, both as a companion to the Central Square Building (long an isolated landmark) and as a relief from the banality and clutter of most of the Massachusetts Avenue commercial strip. Particularly noteworthy are Central Plaza's small but distinctive horizontal hanging signs.

Contemporary with the Central Square Building are a large number of one-story store blocks with cast-stone facades. One such block replaced the former Athenaeum and City Hall (Fig. 233) in 1922; another replaced a portion of

273. CENTRAL SQUARE BUILDING, 1926. BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

274. CENTRAL PLAZA, 1967. EDUARDO CATALANO & ASSOCIATES, ARCHITECTS

Francis Dana's South Row (Fig. 260) in 1929. The latter block (Fig. 275), designed by F. A. Norcross, consists of stores of various sizes fronting on both Massachusetts Avenue and Brookline Street. Under the portion of the building at Brookline and Green Streets is a basement bowling alley. Separation between the different stores is expressed on the facade by cast-stone pinnacles that carry up above the parapet; the parapet itself varies in height and is adorned with cast-stone plaques on the principal sections. None of these cast-stone store blocks predates World War I.

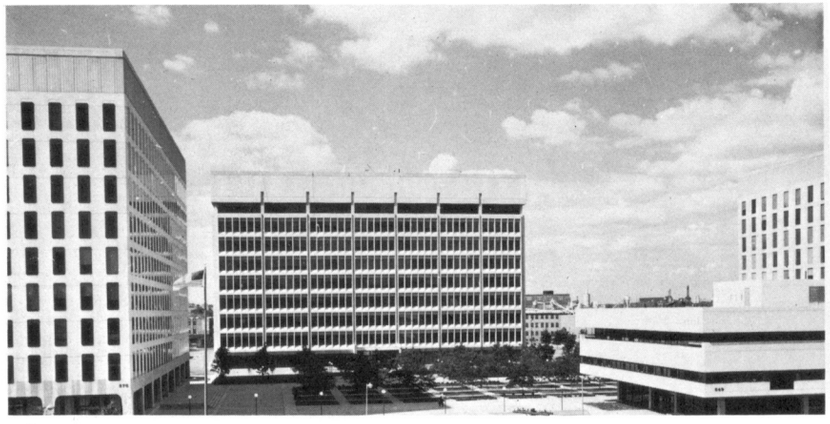
One-story stores in existing commercial areas were a step in the direction of modern, automobile-oriented shopping centers. Their success was hindered by traffic and parking problems in the congested business district, alleviated to some extent in recent years by the provision of municipal parking lots in several locations near Massachusetts Avenue. The next step came after World War II with the development of full-fledged shopping centers predicated entirely on the automobile; the principal Cambridgeport example is the Stop & Shop supermarket complex on Memorial Drive (Fig. 276), begun in 1946 and expanded several times over the succeeding years. Because of the lack of available land in Cambridgeport for large-scale, unified-design shopping centers, other automobile-centered retail development has consisted of isolated, parking-lot-surrounded structures (restaurants, gas stations, clothing stores, motels), particularly along Memorial Drive. Even in established commercial districts, some drive-in architecture has come about through demolition of existing buildings (often ones with an appropriate urban scale) and their replacement with isolated one-story structures surrounded by asphalt. An example is the Inman Square branch of the East Cambridge Savings Bank (Fig. 277), designed in 1965 by T. M. James Company, the same firm that designed the bank's main office in 1931 (*East Cambridge,* p. 57). The

275. 468-480 MASSACHUSETTS AVE., 1929. F. A. NORCROSS, ARCHITECT

276. STOP & SHOP, 729-739 MEMORIAL DR., 1946

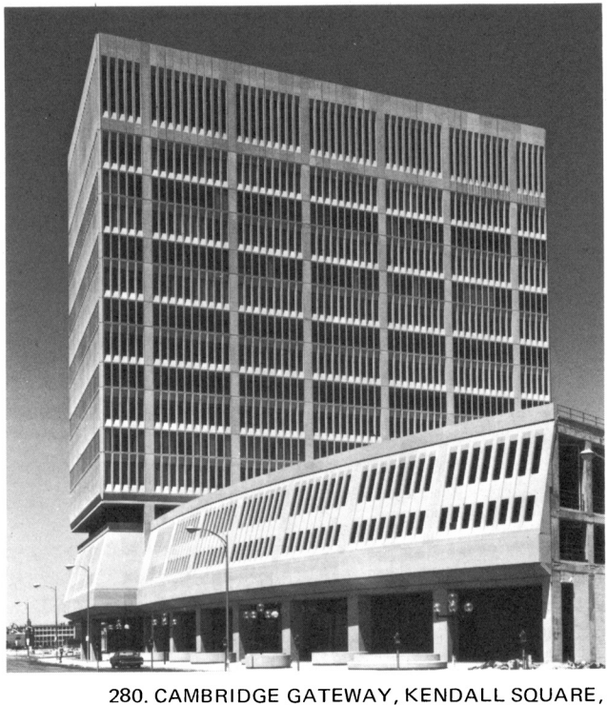
277. INMAN SQUARE BRANCH, EAST CAMBRIDGE SAVINGS BANK, 1965. T. M. JAMES CO., ARCHITECTS

Charlesbank Trust Company's building at 124 Broadway is comparable, though it will have to be removed when the land on which it stands (part of the Kendall Square Urban Renewal Area) is developed. Designed by Joseph A. Donohue, it was built in 1966.



278. TECHNOLOGY SQUARE, 1961-1966. CABOT, CABOT & FORBES ASSOCIATES, EDUARDO CATALANO, AND PIETRO BELLUSCHI, ARCHITECTS

279. TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE. BUILT 1968-1970 FOR NASA. EDWARD DURELL STONE, ARCHITECT

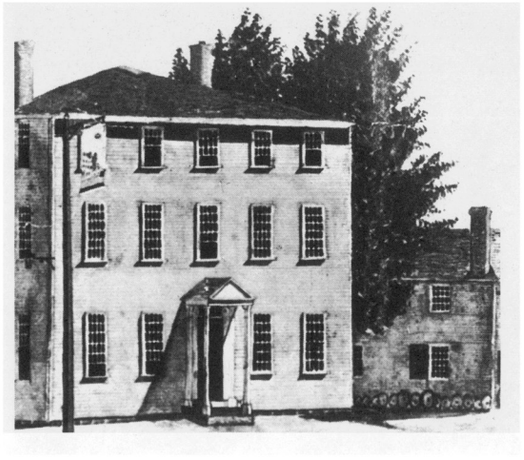


280. CAMBRIDGE GATEWAY, KENDALL SQUARE, 1968-1970. EMERY ROTH & SONS, ARCHITECTS

The Kendall Square area contains the largest concentration of new commercial architecture in Cambridge. Mostly the result of postwar urban renewal, it consists of three major projects – Technology Square, the Transportation Systems Center, and Cambridge Gateway. Technology Square (Fig. 278), which occupies the site of outmoded factory buildings and tenements, was developed by Cabot, Cabot and Forbes Company in association with M.I.T. The four reinforced-concrete buildings surrounding a landscaped plaza were built in 1961-1966 to designs by Cabot, Cabot and Forbes Associates, Eduardo Catalano, and Pietro Belluschi; an additional tower is planned. The buildings contain offices and laboratories, primarily for science and engineering firms. The low, pavilion-like structure in front (549 Main Street) is the corporate headquarters of Polaroid Corporation.

A prime tenant in Technology Square during the years 1964-1969 was the National Aeronautics and Space Administration's Electronics Research Center, which commissioned its own buildings nearby. Late in 1969 NASA announced its decision to close the center, and the following spring the Transportation Systems Center of the Department of Transportation took over the new NASA complex. The main building is a thirteen-story office-and-laboratory tower clad in beige brick; this and a similarly finished auditorium building parallel to Broadway were designed by Edward Durell Stone (Fig. 279). Two reinforced-concrete laboratory structures at the rear of the site were built before NASA's decision to close; these were designed by The Architects Collaborative. Additional acreage cleared for NASA (29 acres out of 42 in the renewal area had been promised) will now be available for other development.

Across Third Street from the former NASA site is a private commercial complex, Cambridge Gateway, being developed by the Badger Corporation (Fig. 280). One tower out of a planned two has been built to date, as well as a curved garage and shopping-mall connection between the two. Emery Roth and Sons were the architects of Cambridge Gateway, which is as different as any building could be from the early Cambridgeport commercial structures that once stood nearby. Whether it is indicative of the kind of development that will occur on the final Kendall Square redevelopment parcel (the triangular tract bounded by Broadway, Main Street, and the railroad) remains to be seen.



281. HOVEY TAVERN, MASSACHUSETTS AVE. AND DOUGLASS ST., 1802. BURNED 1828. DETAIL OF FIG. 14

Combined Residential and Commercial Buildings

A number of the commercial buildings mentioned thus far have included some residential use, since it was common 19th-century practice to have stores on the ground floor and living accommodations above. Certain other buildings are predominantly residential in character yet in one way or another can also be classified as commercial. In Cambridgeport, three categories of such buildings stand out – early 19th-century inns and taverns; later 19th-century tenements or apartments with one or more ground-story stores; and recent high-rise motels or apartments with some commercial occupancy.

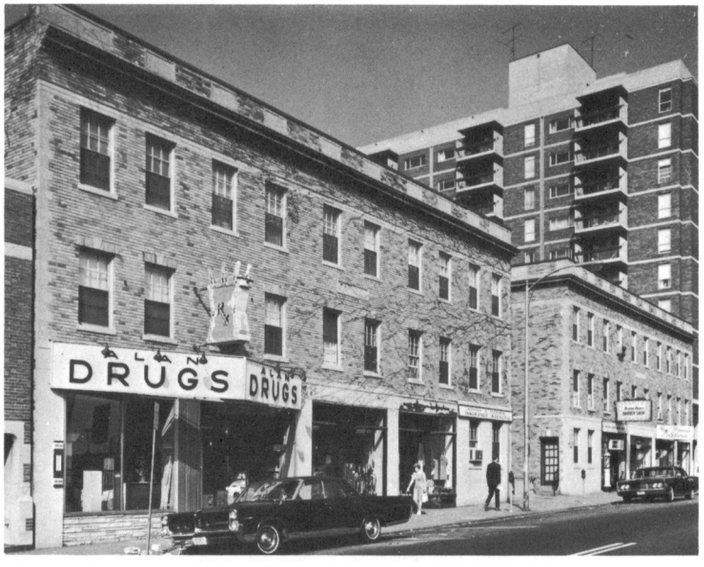
Inns and taverns were important in the early days, when commercial trade routes passed through Cambridgeport on their way to Boston. After the coming of railroads, the need for such travelers' facilities declined, and the early inns gradually disappeared. An idea of what these buildings were like can be gained from an old view of the Hovey Tavern (Fig. 281), which stood from about 1802 until 1828 on the west corner of Massachusetts Avenue and Douglass Street. It was a three-story, hip-roofed, frame structure, indistinguishable from large houses of the period except for its tavern sign hanging from a tall standard in front. Other inns and taverns were located east of the Hovey Tavern site, toward the West Boston Bridge. Some were of brick and some of frame, but all are likely to have had similar massing and fenestration.

As pointed out in the housing-types section of this report, it was not until the later 19th century that definable forms of multi-family housing emerged. The more urban types – tenements and decker-type apartments – sometimes had stores on the ground floor. A good example (though the original storefronts have been changed) is the mansard-roofed tenement block at the corner of Main and Columbia Streets (Fig. 282). Built in 1870, it originally had four stores on the ground floor and four flats on each of the three upper floors. The living room of each flat is expressed by a bay window on the Main Street facade; an additional tier of bays lights the middle rooms of the flats on the Columbia Street end.

282. 893-907 MAIN ST., 1870

283. THE KENNEDY, 430-442 MASSACHUSETTS AVE., 1890. GEORGE FOGERTY, ARCHITECT

Across Lafayette Square, at 430-442 Massachusetts Avenue, is the monumental, five-story Kennedy block (Fig. 283), built in 1890 to designs by George Fogerty. This stone-trimmed brick building has symmetrical tiers of copper-clad bays on the four residential floors, above ground-story commercial space (which has been remodeled). There were four apartments per floor originally, each extending in the decker manner the full length of the building.

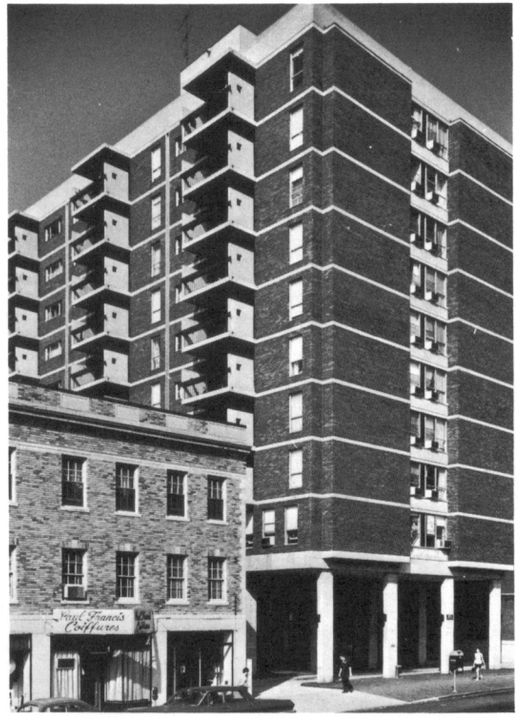


284. MODERN MANOR, 840-864 MASSACHUSETTS AVE., 1925. G. U. JACOBS, ARCHITECT

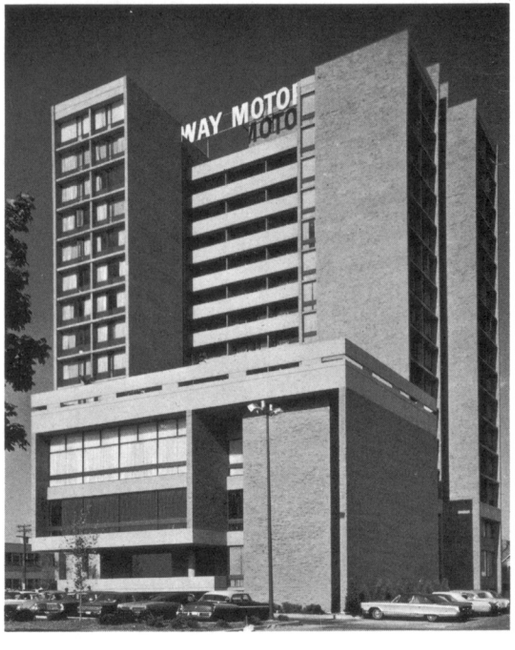
Construction of large residential structures on the city's main commercial arteries virtually ceased in the 20th century, largely because automobile and truck traffic made these locations less desirable than before. One Cambridgeport exception is Modern Manor at 840-864 Massachusetts Avenue (Fig. 284), which adapts to its main-artery location by grouping its apartments around a sunken central courtyard. A section of the building with shops fronting on the avenue masks the courtyard and most of the apartments from traffic noise. A row of garages in back, along Green Street, is an additional feature of this project, which was designed by G. U. Jacobs and built in 1925.

Next door, 872 Massachusetts Avenue is a modern high-rise structure that protects its apartments by elevating them above the ground (Fig. 285). Parking occupies the lowest two levels (one entered from Green Street, the other from Massachusetts Avenue); offices are on the second and third floors; and eight stories of apartments (each with a projecting concrete balcony) begin at the fourth-floor level. J. Timothy Anderson designed 872, which was built in 1964 on the site of the former Briggs house (Fig. 124).

A comparable structure, serving transients rather than permanent residents, is the Fenway Cambridge Motor Hotel at 777 Memorial Drive (Fig. 286). Designed by Salsberg and Le Blanc and built in 1966, this fifteen-story building has 200 guest bedrooms, various dining and function rooms, a fifth-story rooftop swimming pool, and a parking garage. Though vastly different, it is the modern equivalent of early 19th-century hostelries such as Hovey's Tavern, welcoming automobile travelers rather than wagon drivers to Cambridgeport and the surrounding Boston community.



285. 872 MASSACHUSETTS AVENUE, 1964. J. TIMOTHY ANDERSON, ARCHITECT



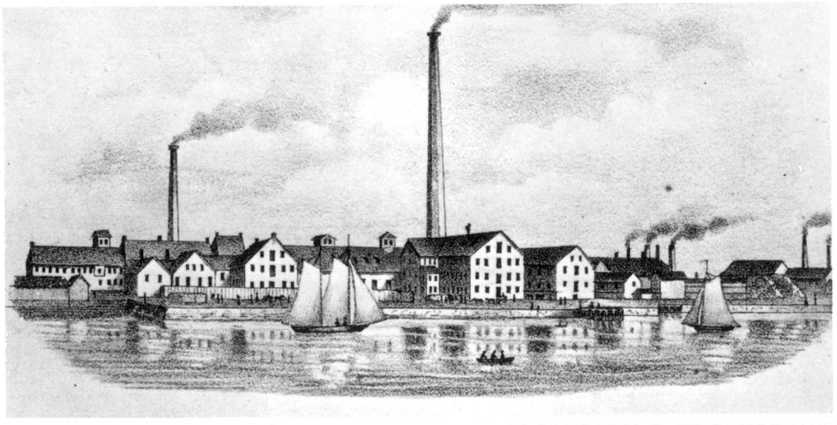
286. FENWAY CAMBRIDGE MOTOR HOTEL, 777 MEMORIAL DR., 1966. SALSBERG & LeBLANC, ARCHITECTS

Industrial Buildings

> In the average mind Cambridge is associated with the shady elms under which have walked and studied and played so many of our foremost citizens; its notable manufacturing facilities are known to few outside of the vicinity of Boston. There are, however, few cities in the world where building land and building facilities are so good; where water is abundant; where coal can be delivered in the original bottom at the very door of your boiler-room; where freight is taken from and brought into your own yard; where municipal control, insurance, and taxes are so fair; where a superb fire department watches over the safety of the factory plant; where intelligent labor can be so readily obtained at a moment's notice, and at a price which is fair to both employer and employee; where the workmen can live well and comfortably, enjoying an unsurpassed school-system and the advantages of a beautiful park; where, associated with the grand old university, there is such an institution as the Cambridge Manual Training School, at which any mechanic may see his son trained free of cost and fitted for the true American upward career. To Cambridge herself, as much as to any other one thing, is the success of all her manufacturing enterprises due, and all agree in acknowledging it.

These glowing words, written by Colonel Theodore A. Dodge and published in Arthur Gilman's *The Cambridge of 1896* (p. 370), indicate the importance of industry to Cambridge at the end of the 19th century. Then, as now, Cambridgeport was the part of the city most affected by the presence of industry. Industrial buildings covered a large portion of the land area; industrial smoke, smells, and noises permeated the air; and housing for industrial workers constituted a large proportion of the residential architecture. The following discussion of Cambridgeport industrial buildings will concentrate on complexes of such structures, where successive building programs illustrate both the character and the evolution of industrial architecture over the past century or more.

Workers' housing was not, for the most part, a component of Cambridgeport industrial complexes. Housing needs were satisfied by entrepreneurs in the building trades rather than directly by industrialists. Although factories and tenements coexist in Cambridgeport, often within sight of each other, they are not related in the sense of having been conceived and built at the same time by the same people. This situation differs from what prevailed in the average New England mill town, but then Cambridgeport was not a mill town. Its first period of development, the beginning of the 19th century, coincided with the beginnings of industrial architecture in New England, but Cambridgeport did not have the water power that was necessary to drive early factory machinery. Even the largest early Cambridge industry, the New England Glass Company in East Cambridge (Fig. 287), relied more on skilled artisans using old-fashioned



287. NEW ENGLAND GLASS COMPANY, EAST CAMBRIDGE, FOUNDED 1818. 1854 VIEW

glass-blowing methods than on power-driven machines. The 230-foot-high chimney that made the New England Glass Company a local landmark served primarily as an exhaust for the plant's numerous glass furnaces.

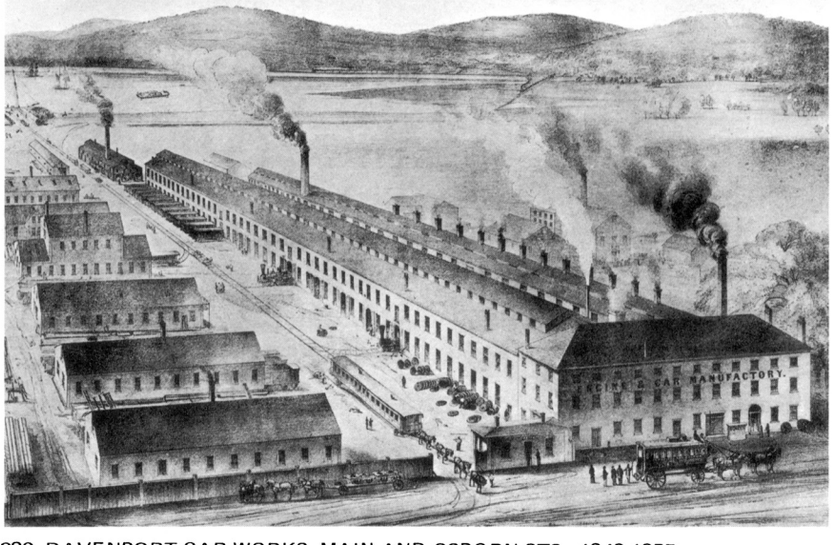
Instead of water for power, Cambridgeport had water for transportation. Although the initial canal-oriented port development failed to make Cambridgeport a center for international commerce, the canals and the river did provide an inexpensive means of transportation for coal, raw materials, and heavy finished goods. A number of industries used water transportation long after the railroad had taken over for most other purposes.

With a few minor exceptions, no pre-Civil War industrial buildings survive in Cambridgeport; vanished examples will therefore have to suffice to indicate what the earlier structures were like. Fortunately, a good visual record exists of one of the most important early Cambridge industries, the Davenport car works. The various buildings of this firm and its successors will serve to introduce the subject of industrial architecture in Cambridgeport.

Davenport Car Works

Charles Davenport's car works, founded in 1832, manufactured coaches and carriages and pioneered in developing and building railroad cars. The firm's first business location (1832-1842) was in Central Square, behind 579-587 Massachusetts Avenue. The buildings there, judging from a woodcut that was part of an advertisement for the firm (Fig. 288), were gable-roofed wooden structures connected by a second-story platform that appears to have been part of a rudimentary assembly line. In 1842 the firm moved to Main and Osborn Streets, having purchased an existing, three-story brick "store" (discussed under Commercial Buildings, Fig. 258). The facilities were expanded in 1842 by construction of six freestanding one-story gable-roofed wooden structures, each

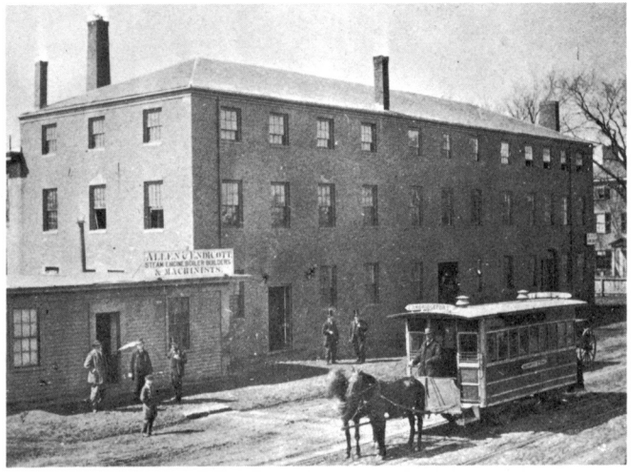
288. ORIGINAL DAVENPORT CAR WORKS, REAR OF 579-587 MASSACHUSETTS AVE., 1832-1842



289. DAVENPORT CAR WORKS, MAIN AND OSBORN STS., 1842-1857

32 by 100 feet; in 1848, brick extensions several hundred feet long were added behind the front building. Parts of these rear extensions still exist, although the front building was replaced in 1882. At the height of its business, which lasted until 1857, the Davenport operation appeared as shown in Fig. 289.

The Davenport works, although extensive, consisted of extremely simple structures, differing only in number and in length from other mid-19th century building types. The appearance of the Davenport buildings hardly varied according to function, despite the fact that storerooms, car-building shops, and a foundry were all part of the complex. Simple gable roofs covered the six freestanding buildings; monitor roofs, with small windows arranged clerestory-fashion, covered the long rear wings behind the main building.



290. 1860's PHOTO OF 1815 BUILDING AT MAIN AND OSBORN STS. DEMOLISHED 1882

The view in Fig. 289 is somewhat visionary, for it shows a direct rail connection. Such a connection, logical for a manufacturer of railroad cars, was part of Charles Davenport's dream, for he was one of the incorporators in 1846 of the Grand Junction Railroad; the tracks of this line ran along the marshes between his plant and the river. Owing to financial difficulties, full use of the line did not begin until 1866; thus, Davenport was never able to take advantage of the railroad he promoted. However, a close connection with the river was useful for loading and unloading goods. Fig. 289 shows a ship tied up at a dock at the back of the property, now far removed from the Charles River Basin.

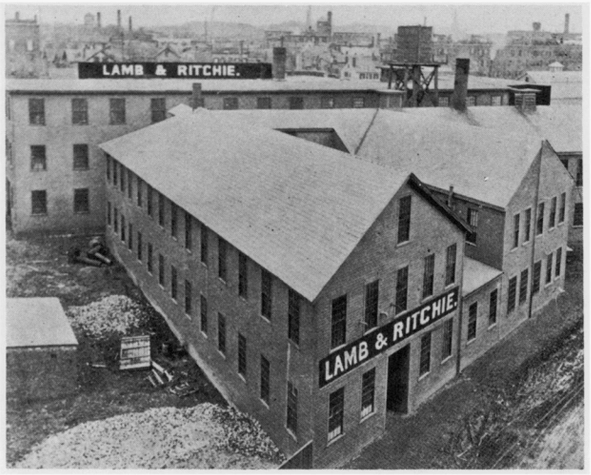
After the demise of the Davenport business in 1857, the factory complex was used for a variety of purposes. Occupants included Samuel P. Allen and Company, wholesale dealers in iron and steel; Allen and Endicott, boilermakers; and the Walworth Manufacturing Company, makers of steam-heating apparatus. In 1876, during the Walworth occupancy, an historic event occurred: Alexander Graham Bell at the Walworth offices in Boston and Thomas A. Watson at the factory in Cambridgeport engaged in the first reciprocal telephone conversation. The 1815 brick "store" (Figs. 258 and 290) still existed then, and the other buildings were much as Charles Davenport had left them.

In 1882, when the Walworth Company had moved to South Boston, the owners of the property tore down the 1815 building and replaced it with another three-story brick building of the same dimensions, 40 by 100 feet (Fig. 291). Since the floor area was the same, the reason for replacing the old structure was not to gain additional space but to secure a building more suitable for heavy manufacturing. The *Cambridge Chronicle* for August 12, 1882, noted that the new building was to be "specially adapted for the casting and manufacture of heavy machinery of all sorts." The basic requirement was a sturdier structural system than had existed in the old building; the solution was mill construction, by then quite standardized – brick bearing walls on the exterior and heavy wooden posts and beams on the interior.

291. PRESENT BUILDING AT MAIN AND OSBORN STS., BUILT 1882

The 1882 building is typical of Cambridgeport industrial architecture of the latter part of the 19th century. Brick was the usual material for exterior walls; windows were individual double-hung units regularly spaced; sills were of granite and lintels of brick (often, as here, in a projecting segmental-arched pattern); the roof was flat or nearly flat; and the only ornament was the projecting brick cornice (here in a corbel pattern). Comparable details existed on the Sylvester Tower piano-key factory at 145 Broadway (Fig. 292), a building of the same period, long demolished.

292. SYLVESTER TOWER PIANO-KEY FACTORY, 145 BROADWAY, DEMOLISHED



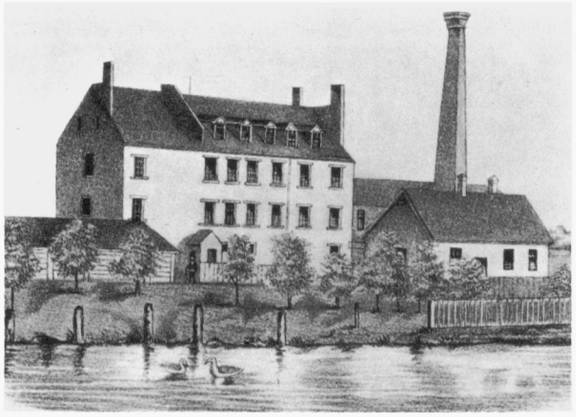
293. LAMB & RITCHIE TUBE WORKS, 63-77 ALBANY ST., IN 1896. FRONT BUILDING 1868-1896. REAR BUILDING 1891

Two wooden buildings on the Davenport site were discussed in the East Cambridge report (p. 60). Now used for storage by the General Latex and Chemical Corporation, they served as the tube works of Lamb and Ritchie in 1896 (Fig. 293). The irregular front building at 63-77 Albany Street, two stories high with a gable roof, was built in four separate stages between 1868 and 1896; the rear building, three stories high with a nearly flat roof, was built in 1891 to designs by Chamberlin and Austin. These structures show that the continued use of earlier styles for modest vernacular buildings occurred in industrial architecture just as in residential; a comparable example would be the survival of the standard gable-fronted side-hall single house until nearly the end of the 19th century.

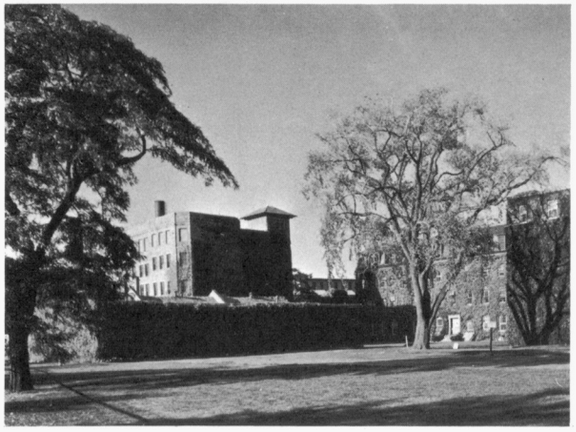
Riverside Press

One of the oldest and most important industrial complexes in Cambridgeport is the Riverside Press, most of the buildings of which still exist, though their days are numbered. Printing operations began at Riverside in 1852, after the city had sold the former almshouse property to Little and Brown. The brick almshouse was converted to a printing plant, and a coal-fired steam power plant and a small storeroom were added (Fig. 294). Henry Houghton at first leased the Riverside plant from Little and Brown, finally purchasing the property in 1867. He then more than doubled the size of the plant by adding an L-shaped three-story-plus-mansard structure with a pavilion-like entrance tower facing Blackstone Street (Fig. 296).

The succession of industrial buildings at the Riverside Press is indicative of changes in industrial architecture from the mid-19th century to World War II. In 1852, it was possible to convert a fourteen-year-old institutional structure to industrial use, for a new industrial building at the time would have been

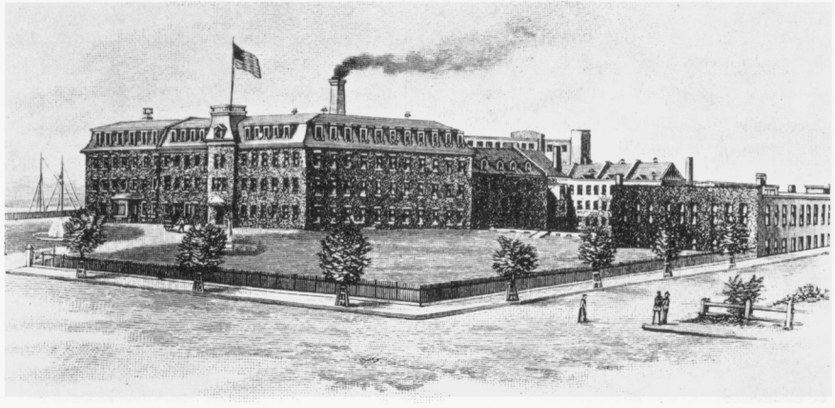


294. RIVERSIDE PRESS IN 1854. MAIN BUILDING WAS CAMBRIDGE ALMSHOUSE OF 1838



295. 1968 PHOTOGRAPH DUPLICATING VIEW IN FIG. 294. ORIGINAL BUILDING SURVIVES IN MUCH-ALTERED FORM UNDER HIP-ROOFED TOWER

296. RIVERSIDE PRESS IN 1896. TOWERED BUILDING 1867. BLACKSTONE ST. IN FOREGROUND, ALBRO ST. AT RIGHT

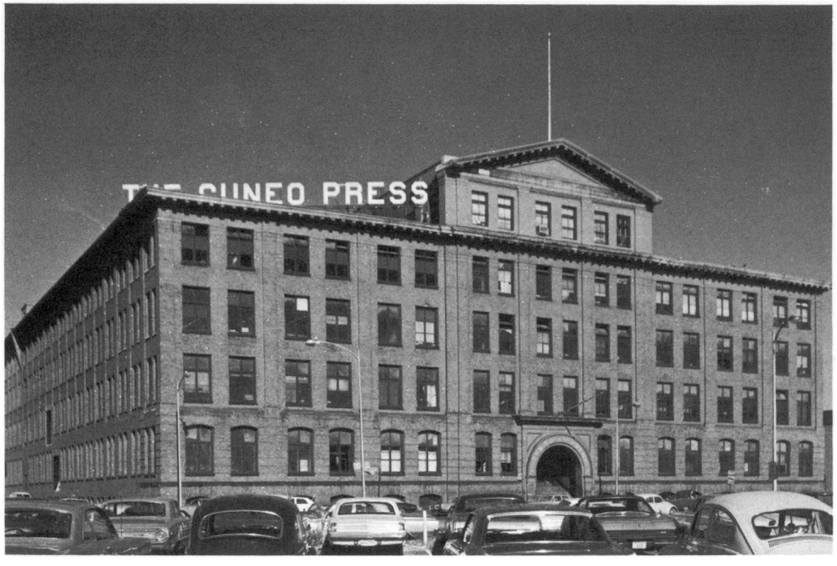


substantially similar – several stories high with a dormered gable roof and individual window openings. A warehouse structure built by the Press in 1859 (demolished 1966) followed this pattern, though with fewer windows because of its storage rather than manufacturing function.

The towered 1867 building seen in Fig. 296 utilizes conventional mill construction, with brick bearing walls and wooden posts, beams, and floors. Instead of a gable roof, it has a mansard, which allows full ceiling height and floor space on the top story. Though essentially a stylistic feature, the mansard roof did make the attic story fully usable, suggesting the logical next step – the flat-roofed, full-height industrial building of the succeeding decades (such as Fig. 291). When the Riverside Press needed additional space after 1877, an extension was made to one end of the L-shaped 1867 structure (to the left of the fire wall in the illustration in Fig. 296); this addition was identical in style to the 1867 building and represents the larger part of what survives. In 1886, an entirely new building was constructed – one story high above a raised basement, with a flat roof lighted by a monitor. This 1866 structure was designed by Bradlee, Winslow, and Wetherell; it appears to the right, along Albro Street, in Fig. 296.

The 20th century brought substantial changes to the Riverside Press in both size and type of buildings. Most notable is a series of four-story, flat-roofed manufacturing buildings along Blackstone and River Streets, built between 1924 and 1946. Similar in appearance to reinforced-concrete factories of the period, examples of which will be discussed later, they actually vary somewhat in construction. The first (1924; Monks and Johnson) has concrete piers, concrete floors on the first three stories, and tile and brick curtain walls. The third (1946; Ganteaume and McMullen, architects), now the most prominent Riverside Press building (Fig. 297), is fully fireproof in construction, with protected steel frame, concrete floors and roof, and brick facing. Large areas of glass in steel factory sash, rather than individual wooden double-hung windows, are characteristic of all three buildings.

297. 1946 RIVERSIDE PRESS BUILDING. GANTEAUME & McMULLEN, ARCHITECTS. PHOTO FROM MEMORIAL DR.



298. CUNEO PRESS (ORIGINALLY ATHENAEUM PRESS), 215 FIRST ST., 1895. LOCKWOOD, GREENE & CO., ARCHITECTS

299. CARTER'S INK CO., 231-239 FIRST ST., 1909. DENSMORE & LeCLEAR, ARCHITECTS

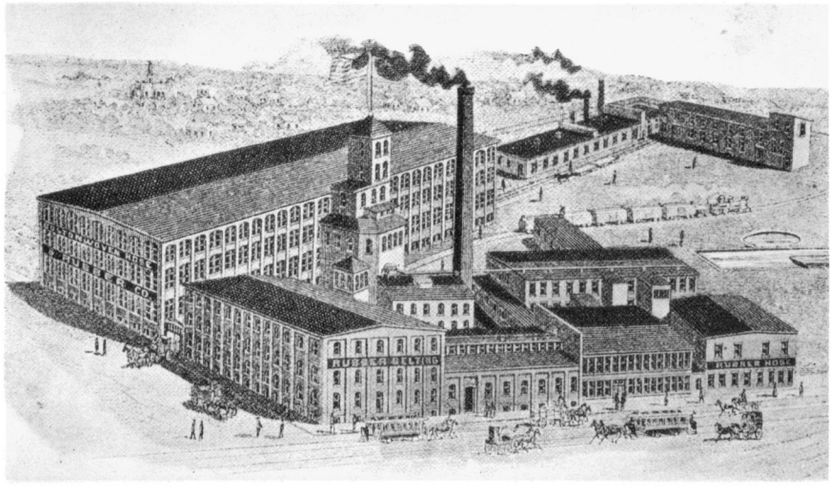
Despite the recent date of the latest section, the Riverside Press is not efficient by modern standards. If land had been available and if coordination with existing buildings had not been necessary, the 1946 structure would have taken a considerably different form – most probably, the spread-out, one-story kind of arrangement typical of post-World War II industrial parks. Not surprisingly from a practical point of view, the Cambridgeport plant will be closed down early in 1971. The Riverside Press name and equipment have been sold to Rand McNally, ending over a century of ownership by Houghton Mifflin as well as 120 years of continuous operation in Cambridge. From now on, the Press will operate far from the river that inspired its name.

The same fate does not seem to be overtaking another major printing plant in Cambridgeport, the Cuneo Press, which faces the Charles River at 215 First Street (Fig. 298). Built in 1895 for the Athenaeum Press, printing arm of the textbook publishers, Ginn and Company, the four-story brick building was designed by Lockwood, Greene and Company, "mill engineers of wide reputation, who have spared no pains to make this as nearly as possible a model building for manufacturing purposes." (*The Cambridge of 1896,* p. 338.) Seventy feet wide, the building had frontages of 200 feet on First Street and 200 on Athenaeum Street, with a separate power plant behind. Subsequent additions along Athenaeum and Munroe Streets have expanded the building to cover the full block. In the words of *The Cambridge of 1896,* the Athenaeum Press was "practically fireproof." In specific terms, this meant that there were tile arched ceilings supported on steel columns and beams on the first three floors (the fireproof part), with conventional wooden post-and-beam mill construction above. The Munroe Street wing, added in 1923, was entirely fireproof – protected steel frame, concrete floors and roof, brick curtain walls.

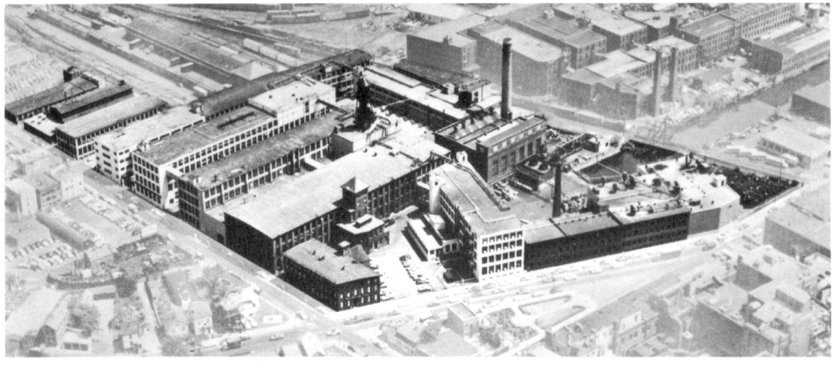
The prominent location of the Athenaeum Press building, which was clearly visible from the West Boston (now Longfellow) Bridge, prompted its architects to give it stylistic embellishments that it might not otherwise have had. Notable are the Richardsonian arched entrance in brick and the statue of Athena ("made especially for this building by Siligardi, of Florence, Italy") that formerly surmounted the central pediment.

Adjoining the Cuneo Press is the Carter's Ink Company building (Fig. 299), designed by Densmore and LeClear and built in 1909. More innovative than Cuneo in both structure and material, Carter's Ink is built of reinforced concrete rather than of brick. The structural bays are clearly expressed on the exterior, and much larger window openings are possible than on brick bearing-wall buildings. However, the facade has a rusticated first story, classical pilasters, and an entablature, all evoking stone construction rather than expressing the concrete in which they are cast. Nevertheless, the new material is indicative of what was to be used for most subsequent Cambridgeport factories.

Despite the imposing appearance of these two plants, a better idea of what actually went on in industrial architecture in the late 19th and early 20th centuries can be gained from factory complexes in less prominent locations. Some of these provide the opportunity of observing changes in material or method of construction in buildings of similar type built over a series of years. Two such complexes in Cambridgeport are the Boston Woven Hose and Rubber Company at Hampshire and Portland Streets and the Simplex Wire and Cable Company at Sidney and Franklin Streets. Both were flourishing during the period of transition between brick mill construction and fireproof reinforced-concrete construction.



300. BOSTON WOVEN HOSE & RUBBER CO.,
HAMPSHIRE AND PORTLAND STS., IN 1896



301. BOSTON WOVEN HOSE & RUBBER CO., CA. 1955

302. BOSTON WOVEN HOSE BUILDING 1,
HAMPSHIRE AND PORTLAND STS., 1886

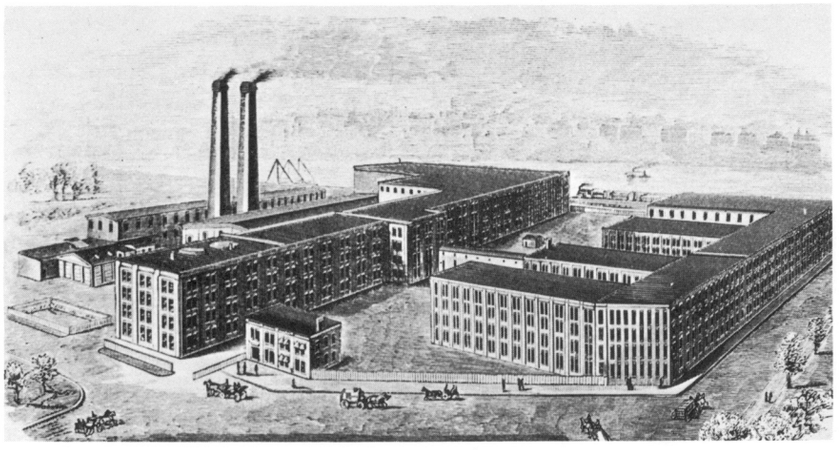
303. BOSTON WOVEN HOSE BUILDING 5, 1892, FROM HAMPSHIRE ST.

Boston Woven Hose and Rubber Company

Boston Woven Hose (Figs. 300 and 301), founded in 1880, achieved significant growth in the three decades preceding World War I. During that time, the firm constructed over a dozen major buildings on the site it had acquired in 1886. The first was a three-story brick building, now offices, at the corner of Hampshire and Portland Streets (Fig. 302), followed in 1892 by a massive manufacturing building with a projecting stair-and-elevator tower (Fig. 303). Both structures are three stories high on raised basements, with pilastered brick walls, wooden post-and-beam construction, and slightly sloping roofs. The first measures 50 by 90 feet, the second 90 by 250. Both are typical late-19th-century mill buildings, particularly the one built in 1892, with its projecting tower, so much a characteristic of 19th-century mills.

In 1907, Boston Woven Hose began a second intensive building campaign, this time with a series of long, parallel structures with their ends toward Portland Street. These buildings are 55 or 60 feet wide, with lengths over 300 feet. All are fireproof, built entirely of reinforced concrete; they have concrete frames, floors, and roofs (which are flat) and concrete panel walls. A portion of one of these – Building 14 along Binney Street, built in 1907 – is seen in Fig. 304. The structural bays are fairly close together (nine feet), the spaces between the piers being filled with paired wooden double-hung windows and concrete spandrels. The structural system is not unlike that of the 1886 and 1892 brick buildings, except that reinforced concrete is used instead of brick and wood. The first two stories have thicker piers, expressing the greater loads they carry. The advantage of studying the utilitarian Woven Hose buildings is that nothing is disguised by superficial stylistic detail. Not all early reinforced-concrete factory buildings had

304. BOSTON WOVEN HOSE BUILDING 14, BINNEY ST., 1907



305. AMERICAN RUBBER CO. PLANT, BINNEY AND POTTER STS., IN 1896

such a narrow bay system as Building 14, but structural bays were generally wider in buildings built after World War I than in those built before.

An aspect of the Boston Woven Hose plant apart form construction of the individual buildings concerns power and transportation. From the beginning the plant had both water and rail connections – the Broad Canal and the Boston and Albany Railroad. Until 1946, power for the complex was provided by its own power plant – the one in Fig. 301 having been built in 1912 by the engineering firm of Stone and Webster. Fuel for the power plant, at least in the early years, was coal delivered in barges that came down the Broad Canal. Canal water was also used as process water for cooling the turbines and for other manufacturing operations. Raw materials and finished goods came and went by water as well as by rail. Now that most of the Broad Canal has been filled in (as part of the Kendall Square Urban Renewal Project), the Woven Hose plant is no longer accessible by water.

The plant, furthermore, is no longer efficient by modern standards. In the words of a retired executive of the company, "the efficient plants today, such as our own newer ones outside Massachusetts, are all on one level, with raw materials coming in at one end and flowing through automatically from machine to machine with little or no handling until the finished product comes out the other end. This efficiency is not possible in our older buildings." (Alden H. Foss, Cambridge Historical Society *Proceedings,* vol. 40, 1967, p. 41.) In 1957, Boston Woven Hose was taken over by the American Biltrite Rubber Company; it would not be surprising if eventually the Cambridge operations were shut down. A similar plant on the other side of the railroad tracks, and one that also took advantage of the Broad Canal, was that of the American Rubber Company (Figs. 305 and 306), largely dating from the 1880's. After being closed down, the American Rubber plant was demolished in 1969 as part of Kendall Square redevelopment.

306. BROAD CANAL AND AMERICAN RUBBER CO. PLANT DURING DEMOLITION, APRIL 1969. BUILDINGS IN DISTANCE ARE THOSE OF BOSTON WOVEN HOSE

Simplex Wire and Cable Company

A Cambridgeport firm that was a contemporary of Boston Woven Hose in its period of initial expansion and prosperity was Simplex Wire and Cable Company. The firm's first building on Franklin Street was built in 1886, and nearly a dozen more followed before World War I. For Simplex as for Boston Woven Hose, the switch from brick to concrete as a building material occurred at the beginning of the 20th century, in this case with some interesting transitional buildings.

Simplex had its origins in the firm of Morss and Whyte, founded in 1840. In 1888 the company took over a former bakery at 112 Franklin Street (designed by James Fogerty and built in 1886), the first step in an eventual occupation of most of the surrounding blocks. The Eastern Expanded Metal Company, allied with Morss and Whyte for a few years, was involved in the construction of

307. SIMPLEX WIERE & CABLE CO. BUILDING AT 69 SIDNEY ST., 1902. J. F. CLAPP, ARCHITECT

308. SIMPLEX BUILDING AT 63 SIDNEY ST., 1902. HORACE MANSON, BUILDER

309. SIMPLEX BUILDING AT 109-117 FRANKLIN ST., 1909. KILHAM & HOPKINS, ARCHITECTS

several buildings for Morss/Simplex. One of these, a one-story structure built in 1899 at 10 Pilgrim Street (now embedded in later structures),had a wooden skeleton with expanded metal and concrete sides (expanded metal being a kind of lath to which the concrete was applied); the roof was concrete, supported on wooden beams. This method of building, though not fireproof because of the wooden frame, did bridge the gap between brick-walled mill construction and full-fledged fireproof reinforced-concrete construction. It also brought concrete out into the open as an exterior building material.

In 1902 Simplex built two new concrete buildings, both three stories high. The smaller of the two, measuring 55 by 60 feet, is at 69 Sidney Street, corner of Auburn (Fig. 307); it was designed by J. F. Clapp and built by Horace Manson. Still not fireproof, it has wooden posts and beams but concrete floors, walls, and roof. The larger of the two, measuring 100 by 200 feet, is at 63 Sidney Street between Franklin and Auburn (Fig. 308); it, too, was built by Horace Manson, but no architect is listed on the building permit. The internal vertical posts of 63 Sidney are wooden, as are the floor beams, though the latter are carried on steel girders. The floors, walls, and roof are of concrete. The construction of 63 Sidney Street is also unusual in that the walls are of monolithic poured concrete, giving quite a monumental appearance, especially with the heavy projecting cornice. Decorative elements besides the cornice include shallow oval roundels, a belt course between the second and third stories, and recessed panels on the Franklin Street end (a section of the building where a high first story takes up the space occupied by two stories elsewhere). All these decorative elements are expressed directly in the poured concrete of the walls.

Subsequent Simplex buildings were of regular fireproof reinforced-concrete construction. The first of the new type was at 109-117 Franklin Street, corner of Sidney (Fig. 309). Kilham and Hopkins were the architects, Eastern Concrete Construction Company the builders, for this 1909 structure. The reinforced-concrete structural frame (supporting concrete floors and roof) makes possible a curtain-wall system, with windows occupying the full distance between vertical structural members instead of being cut individually into masonry bearing walls. The double-hung wooden window sash are paired or tripled to fit the available space, which is narrower in the corner bays than elsewhere on the building. Beneath the sills are spandrels of eight-inch tile with a stuccoed exterior surface. There is a suggestion of entablature at the top of each vertical pilaster, but nothing is allowed to get in the way of full-height fourth-story windows.

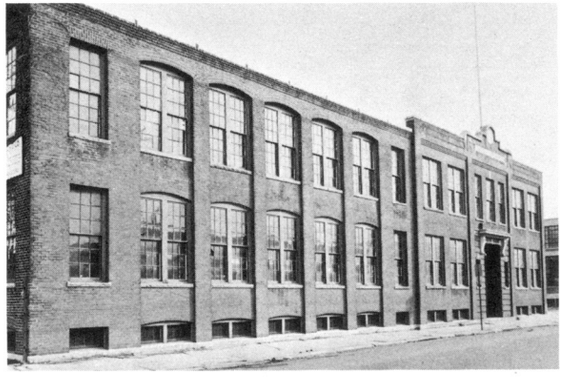
109-117 Franklin Street, L-shaped to begin with, was extended to Green Street in 1922 (Fig. 310; Stone and Webster, builders). The new part follows the same four-story system, with a simpler corner treatment and with spandrels of concrete instead of stuccoed tile. The principal difference is in the type of windows – steel factory sash instead of wooden double-hung units. The new window type, used for virtually all Cambridge industrial buildings after World War I, has multi-paned steel sash with both fixed and movable sections, the movable sections nearly always being of the awning type. The glass is generally translucent wire glass, but it can be clear if desired – in a few panes, an entire window, or a group of windows.

310. GREEN ST. EXTENSION OF 109-117 FRANKLIN ST., 1922.
STONE & WEBSTER, BUILDERS. ONE-STORY CORNER BUILDING, 1963

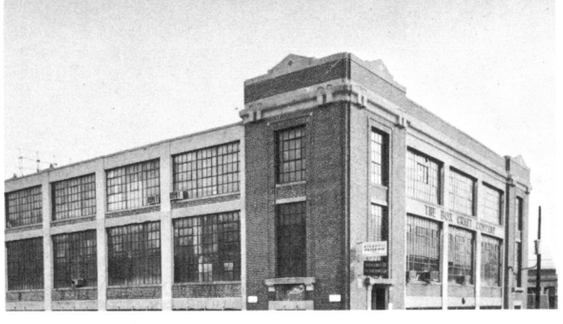
Visible in Fig. 310 is a one-story structure at the corner of Green and Sidney Streets, occupying the ell formed by 109-117 Franklin Street and its 1922 extension. Built in 1963, it is typical of mid-20th-century industrial architecture (especially warehouse buildings) in its one-story height, flat roof, blank walls, and minimal fenestration. A similar but much more extensive Simplex warehouse, built in 1960, occupies the interior of three full blocks between Brookline and Sidney Streets; to make room for it, two streets, Auburn and Pilgrim, had to be closed. The only historical casualty of this Simplex expansion was the loss of the former Inman mansion, which stood as a decaying tenement house at the corner of Brookline and Auburn Streets (Fig. 9), having been moved there in 1873 from its original Inman Street location. Ironically, Simplex itself has now been lost to Cambridge, so soon after its final burst of expansion. The firm's assets were acquired by a New York corporation in 1969, and in 1970, upon completion of a new and efficient manufacturing plant in Maine, the Cambridge operations were shut down. The Simplex real estate has been purchased by M.I.T. (for taxable development rather than for institute expansion); inevitably, the outmoded factory buildings will be demolished.

Loss of Simplex is regrettable from an architectural historian's point of view, because the Simplex complex is the best place in Cambridge to study the development of reinforced-concrete construction. Of particular interest is the presence – in addition to full-fledged reinforced-concrete buildings – of the earlier tentative experiments with concrete as an industrial building material (such as 10 Pilgrim Street in 1899 and 69 and 63 Sidney Street, Figs. 307 and 308, in 1902). It was not until 1908, in a revision of the Building Code, that the City of Cambridge officially recognized reinforced concrete as a building material, defining it and specifying its characteristics, strength, and composition. Then came a spate of reinforced-concrete industrial buildings, including those of Boston Woven Hose, Simplex, and Carter's Ink.

Despite the dominance of reinforced concrete as an industrial building material after 1908, not all Cambridgeport industrial buildings used it. For example, a new plant of the sheet-metal fabricators, Lamb and Ritchie, replacing their hodgepodge of older wooden buildings (Fig. 293), was built of brick mill construction in 1909 at 252-260 Albany Street (Fig. 311). The architects were



311. LAMB & RITCHIE
SHEET METAL FACTORY,
252-260 ALBANY ST.,
1909. DENSMORE &
LeCLEAR, ARCHITECTS



312. STANDARD PLATE
GLASS CO. FACTORY,
270 ALBANY ST., 1920

Densmore and LeClear, who in the same year were responsible for the Carter's Ink building (Fig. 299). The Lamb and Ritchie plant is a sprawling two-story brick structure with segmental-arched windows, granite sills, and wooden double-hung sash. Most of the roof is flat, but there is a gable roof over the rear section of the plant, backing up to the railroad. Interior supports throughout are of wood. In essence, this building represents a continuation of 19th-century factory tradition.

Adjoining Lamb and Ritchie at 270 Albany Street, also backing up to the railroad, is a typical fully developed reinforced-concrete factory, that of the Standard Plate Glass Company (Fig. 312). Built in 1920, this building, now used for box manufacturing, has steel factory sash occupying almost the entire space between the reinforced-concrete structural grid; the brick spandrels are minimal. Only in the front section, particularly in the corner bays, is there any attempt at architectural embellishment. Visible in the illustration is the fact that the first-floor level of the building is raised a few feet above the ground; this was standard practice for factories and warehouses from the mid-19th century on, whenever ease of loading (whether from wagons, railroad cars, or trucks) was an important consideration. Not always was this the case. In the Simplex complex, for example, it was important to be able to roll huge reels of cable in and out of a series of interconnected buildings; thus, the Simplex buildings are all at ground level.

313. JORDAN MARSH WAREHOUSE (ORIGINALLY GRAY & DAVIS CO. FACTORY), 580 MEMORIAL DR., 1913. MONKS & JOHNSON, ARCHITECTS

314. JOHNSON-APPLEBY BUILDING, 600 MEMORIAL DR., 1926. ABERTHAW CO., ARCHITECTS AND BUILDERS

315. FORD MOTOR CO. BUILDING (NOW POLAROID), 640 MEMORIAL DR., 1913. JOHN GRAHAM, ARCHITECT

Memorial Drive Factories

The most important Cambridgeport industrial buildings are those along the Charles River. Two have already been noted – the Athenaeum Press of 1895 (Fig. 298) and the Carter's Ink building of 1909 (Fig. 299). Several others are worthy of attention.

At 580 Memorial Drive is the Jordan Marsh Warehouse (Fig. 313), built in 1913 as a factory for the Gray and Davis Company. Monks and Johnson were the architects and engineers both for the original building in 1913 and for its remodeling for Jordan Marsh in 1929. It is a sizeable structure, five stories high and measuring 60 by 380 feet. Built entirely of reinforced concrete, it has a concrete frame (with a bay spacing of twenty feet) and concrete posts, floors, and roof. Steel factory sash constitute most of the exterior wall surface, with brick spandrels on the front and sides but raw concrete on the rear. As on the Standard Plate Glass factory of 1920 (Fig. 312), the corner bays of the Jordan Marsh warehouse are emphasized: there is brick veneer on the vertical elements, and an ornamental peaked parapet projects above the cornice level of the rest of the building. Except for this corner treatment, the building is composed of a regular repetition of identical structural bays.

Adjoining Jordan Marsh at 600 Memorial Drive is a comparable building of a later date – the Johnson-Appleby Company jam factory of 1926 (Fig. 314). Designed and built by the Aberthaw Company, it is a routine and predictable example of its type – five stories high, of reinforced-concrete construction, with steel factory sash and brick spandrels. The corner bays are again emphasized, here just on the facade, not carrying around the corners. There is also a central parapet (above the center two bays where the entrance is) bearing the Johson-Appleby name in raised letters, now painted over. In a remodeling by Ralph LeBlanc for Electronic Image Systems, the current occupants, the window sash are being replaced and the building is being converted from manufacturing and storage to laboratory and office space.

Further down Memorial Drive, at its intersection with Brookline Street and the Boston University Bridge, is the largest riverfront industrial building, now occupied by Polaroid (Fig. 315). Designed by John Graham and built in 1913 for the Ford Motor Company, it was originally an automobile assembly plant, storage and service building. Of reinforced-concrete construction, it is more extensively covered with brick veneer than the previous two buildings and also has a considerable amount of terra-cotta ornament. Still, its regularly expressed structural grid and its full-width steel factory sash are its most important characteristics. The main five-story reinforced-concrete structure measures 75 by more than 400 feet; behind is a steel-framed, glass-walled section, forty feet deep and of full height, that originally functioned as a loading and receiving shed with a travelling crane at the top. Additional low warehouse structures are also part of the complex. There is direct rail access from the Boston and Albany to this building as to its neighbors, Jordan Marsh and Johnson-Appleby.

316. NEW ENGLAND CONFECTIONERY CO., 254 MASSACHUSETTS AVE., 1926.
LOCKWOOD, GREENE & CO., ARCHITECTS

Not on the river, but comparable in size and scale to the Ford/Polaroid plant, is the New England Confectionery Company factory at 254 Massachusetts Avenue (Fig. 316). Designed by Lockwood, Greene and Company, the "mill engineers" who had designed the Athenaeum Press in 1895, the NECCO factory was built in 1926. Six stories high, it is of reinforced-concrete construction and has the extensive window areas expected in industrial buildings of the period. These openings were originally filled with steel factory sash but have since been replaced with glass block.

There are three major parts to the NECCO factory: a front section on Massachusetts Avenue, measuring 80 by 160-190 feet and containing a formalized entrance tower at the corner of Landsdowne Street; a connecting section measuring 130 by 110 feet; and a rear section along Cross Street, measuring 100 by 300-400 feet. There is also a separate power plant, its tall chimney bearing the NECCO initials. Access to the factory is by railroad (a spur track allows freight cars to penetrate directly into the building at the rear) and by truck (using a series of loading docks along Landsdowne Street). The building is of the raised-basement type, so that loading and unloading can be done at floor level from either trucks or railroad cars.

One of the largest manufacturing facilities in Cambridge, the NECCO factory is also one of the last multi-story, self-contained industrial plants to be built in the city. Construction of all types came to a halt after the stock market collapse of 1929, and post-Depression industrial buildings tended to be lower and more spread-out – except for those that were essentially additions to earlier facilities, such as the final Riverside Press building of 1946 (Fig. 297).

317. BB CHEMICAL CO. (NOW POLAROID), 780 MEMORIAL DR., 1937.
COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS

Back on the river again, a splendid example of a 1930's factory is the BB Chemical Company building, now occupied by Polaroid, at 780 Memorial Drive (Fig. 317). This pristine design was the work of Coolidge, Shepley, Bulfinch and Abbott in 1937. Intended as office, laboratory, and "experimental factory" (to quote the building permit), it is a long, low structure, the horizontality of which is emphasized by continuous bands of windows – glass block on the first floor, metal-framed horizontally divided sash above. The only vertical element is the central tower, where a curved canopy and projecting window bay announce the entrance. Above the tower window is a clock, surmounted originally by stylized letters spelling "BB Chemical." Although the glazed-brick and glass facade obscures, even belies, the structural system, the frame, floors, and roof are of reinforced concrete. Measuring 50 by 270 feet, the building is three stories high with a recessed fourth story at the center.

A separate two-story building behind, intended for manufacturing operations, has a steel frame, concrete brick walls, and horizontal bands of windows. Because this latter structure is out of sight from the river and needs to make no symbolic corporate statement, it lacks the studied symmetrical elegance of the front building. Several other lower structures, primarily for storage, complete the complex. BB Chemical was a subsidiary of United Shoe Machinery Corporation; its Cambridge plant produced adhesives for use in shoe manufacturing and other industries.

After World War II, the City made available industrial sites on filled land along the river, between Commercial Avenue and a new thoroughfare called Cambridge Parkway. The buildings erected there between 1946 and 1951 were two- or three-story office, laboratory, and warehouse structures with considerably less stylistic distinction than the BB Chemical building but with as great or greater environmental importance because of their prime waterfront location facing Boston. An example is 31-37 Cambridge Parkway (Fig. 318),

318. 31-37 CAMBRIDGE PARKWAY, 1950-1951. AMBROSE BURTON, ARCHITECT

built in 1950-51 to designs by Ambrose Burton. As in the BB Chemical building, horizontality is the principal design characteristic, emphasized by the horizontal window openings (not continuous in this case) and by the extensive length (210 feet) of the facade compared to the two-story height. The entrance, not on center, is recessed rather than projecting and is expressed by white rather than red brick and by vertical window units. The other Cambridge Parkway buildings represent similar variations on "modern" stylistic themes, without the pristine purity of BB Chemical. All originally had some kind of warehouse use, though several are now devoted entirely to research.

Warehouses

Warehouses are not essentially different in structure or appearance from the sorts of industrial buildings discussed thus far. In fact, the uses of factory and warehouses are frequently interchangeable, as shown by the Gray and Davis factory of 1913, which in 1929 became the Jordan Marsh warehouse (Fig. 313). The principal requirement of a warehouse is ease of access, so that goods may be loaded and unloaded with the least difficulty. Consequently, most Cambridgeport warehouses are located alongside railroad tracks, with provision for truck loading facilities as well. The Cambridge Parkway buildings, for example, have access to a spur track at the rear, next to Commercial Avenue. The first story of a warehouse is nearly always several feet above ground level to facilitate loading. Windows are likely to be fewer in a warehouse than in a factory building, since light is not needed to illuminate the manufacturing process.

A good example of a turn-of-the-century warehouse is the one built in 1902 by the George F. Blake Manufacturing Company on Sixth Street between Bent and Rogers (Fig. 319). Six stories high on a raised basement, this building has fewer windows than would have been likely on a factory of the period, but otherwise it is not substantially different from a mill building such as the Athenaeum Press (Fig. 298). A railroad spur track on Rogers Street services the Blake warehouse, as does a stair-and-elevator tower at the center of the rear facade. The building has exterior brick walls and utilizes standard mill construction, supplemented by

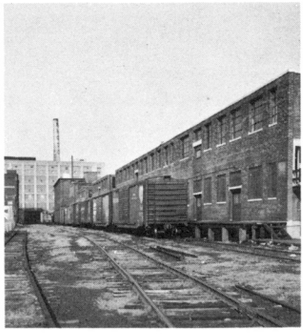
319. BLAKE MANUFACTURING CO. WAREHOUSE, 130 SIXTH ST., 1902. B. L. BALDWIN & CO., ARCHITECTS. DEMOLISHED 1971

320. METROPOLITAN STORAGE WAREHOUSE, MASSACHUSETTS AVE. AND VASSAR ST., 1895. PEABODY & STEARNS, ARCHITECTS

masonry fire walls that divide the interior into three sections measuring 67 by 77 feet each. The overall exterior dimensions of the building are approximately 70 by 190 feet.

The most distinctive Cambridgeport warehouse, as well as one of the oldest buildings in the vicinity of M.I.T., is the Metropolitan Storage Warehouse at Massachusetts Avenue and Vassar Street (Fig. 320). Built in 1895, the five-story, 90-foot-wide brick building was extended in 1911 to a total length of 480 feet. Peabody and Stearns were the architects for both the original building and the extension. Although constructed of brick rather than of reinforced concrete, the warehouse is fireproof, because its ceiling and roof are brick-arched. Like the Blake warehouse, it has brick bearing walls dividing the interior into several large component spaces; as a storage warehouse, it is further subdivided into individual storage rooms, although not by fire walls. Stylistically, the Metropolitan Warehouse evokes the solid, impregnable image of a medieval castle, with a prominent square corner tower, additional towerlike projections along both main facades, a crenellated corbelled cornice, and small slit windows (round in the top story). It helped to set the style for such subsequent pre-M.I.T. structures as Riverbank Court of 1900 on Memorial Drive (Fig. 54) and the Armory of 1902 across Vassar Street (Fig. 245). In terms of access, the

A. FRONT



B. REAR (NECCO IN DISTANCE)

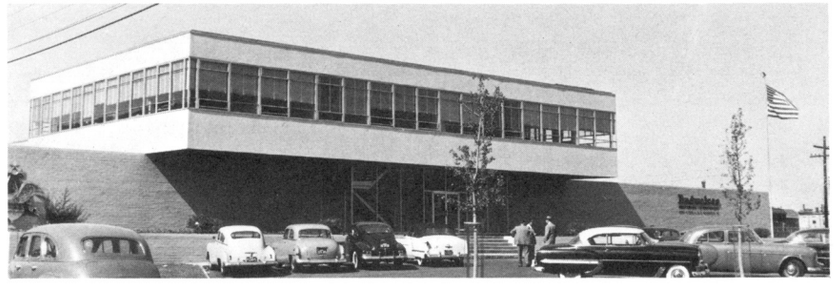
321. 157-195 ALBANY ST. WAREHOUSES, 1923. MONKS & JOHNSON, ARCHITECTS

warehouse lies directly alongside the Boston and Albany railroad tracks and has truck loading doors along Vassar Street, although the latter lack adequate provision for trucks to pull off the street. Off-street loading facilities were not so important in the horse-and-wagon era when the building was erected.

Cambridgport warehouses built after World War I are nearly all one or two stories high rather than four, five, or six, as before. More land was required for their construction, but functionally they were more efficient. Again, rail access was of prime importance, although in more recent years warehouses built entirely for truck transportation have come into being.

The district southwest of Massachusetts Avenue along the Boston and Albany tracks is primarily a 20th-century warehouse district. A good example of a warehouse complex there is the series of buildings at 157-195 Albany Street (Fig. 321), built in 1923-24 to designs by Monks and Johnson. A series of five long structures measuring 60-70 feet by 210 feet, they front on Albany Street and back up to the Purrington Street railroad tracks. Raised above ground level, they have truck loading bays along the sides and rail platforms in back. Exterior walls are of brick, interior posts of wood – standard mill construction. Roofs are flat, and the regular rectangular window openings have steel factory sash. Several of these buildings are now used for research or light manufacturing, but building permits indicate that all were designed as warehouses. This group differs from most of the other industrial buildings discussed in this report in being designed for lease rather than for use by the firm that built them. One owner-developer was responsible for all five of the warehouses at 157-195 Albany Street, and various tenants have leased space over the years. Other industrial groups in Cambridgeport, especially complexes of one-story 20th-century buildings such as the ones occupied by the American Science and Engineering Company on Carleton Street, have similarly been built for lease, but like much investment property, they are generally less interesting than owner-occupied buildings.

An owner-occupied, post-World War II warehouse that is more style-conscious than most is the Anheuser-Busch warehouse at 111 Sixth Street (Fig. 322). Architects of this 1951 structure were Fordyce and Hamby of New York and



322A. ANHEUSER-BUSCH WAREHOUSE, 111 SIXTH ST., 1951. 1953 PHOTO

B. FREIGHT CARS, BENT ST.

C. TRUCK LOADING BAYS, CHARLES ST.

323. INDUSTRIAL STAINLESS STEELS WAREHOUSE, 147 SIXTH ST., 1961-1968. ARCHITECTS: TRACY ENGINEERING CO. (1961); STECO ENGINEERING CORP. (1968)

Fay, Spofford and Thorndike of Boston. Facing Sixth Street and extending across the entire width of the lot is a one-story brick wall that contains the office entrance but is otherwise unbroken, masking the various warehouse operations. A second-story office floor with a continuous horizontal band of windows cantilevers some fifteen feet over the brick wall. Behind this crisp facade lie extensive facilities for storage and loading, parts of which were added in 1966 by Walter A. McKinnon and Associates. On the Bent Street side of the full-block lot is a railroad spur track for freight-car access; on the Charles Street side is a long series of truck loading bays. The floor level is raised to allow direct loading from either freight cars or trucks.

Different from the Busch warehouse in having a large unbroken interior space at ground level is the Industrial Stainless Steels warehouse at 147 Sixth Street (Fig. 323). Built in two sections in 1961 and 1968, to designs by two different

engineering firms, it has a steel frame and roof deck and concrete block walls with translucent corrugated panels in the upper section. The interior opens up to a full two-story height. The concrete floor is at ground level to permit trucks to drive directly in and out of the building; garage-door entrances are at the corners of each section of the building, emphasized by brick walls (an effect not unlike the corner emphasis of factories such as Standard Plate Glass, Fig. 312). The size and weight of the materials stored in this warehouse argued for a drive-in arrangement as opposed to a raised floor level for loading from outside. Other industrial buildings such as steel foundries are often similarly arranged. The Simplex buildings, for example, are built at ground level (see Figs. 307-310), and the huge Simplex warehouse at Auburn, Brookline, and Pilgrim Streets or the smaller structure visible in Fig. 310 are not unlike Industrial Stainless Steels in principle if not in materials or appearance. Another building type, not specifically discussed here but also of the ground-level, drive-in type, is the commercial or industrial garage.

Power Plants

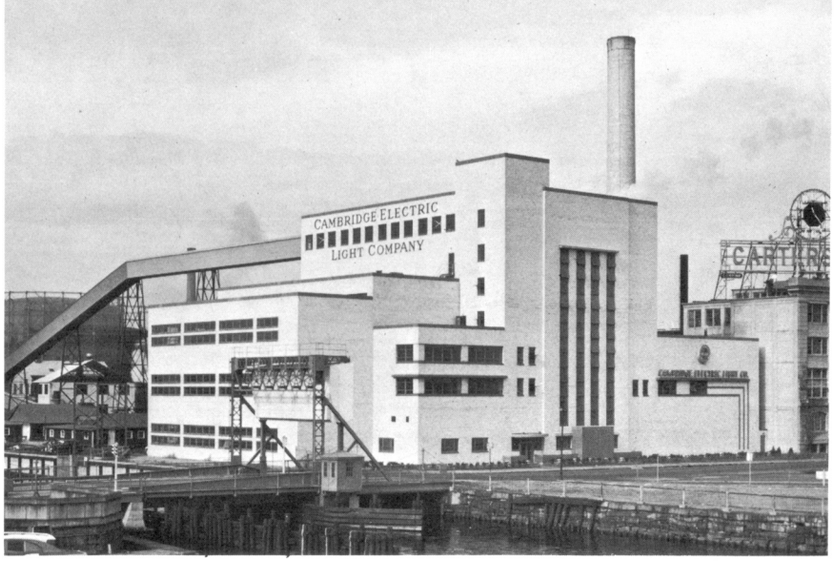
In the absence of water power, power for industry in Cambridgeport has traditionally come from steam or, in the 20th century, from electricity. A few of the larger Cambridgeport industries have (or have had) their own power plants; already noted have been the Boston Woven Hose power plant visible in Fig. 301 (built in 1912 and used until 1946) and the New England Confectionery Company power plant visible in Fig. 316 (built as part of the NECCO factory in 1926). Most Cambridgeport industries now get their power from the Cambridge Electric Light Company, which since 1887 has had a plant fronting on the river at Western Avenue. The present power station at Memorial Drive and Western Avenue (Fig. 324) was built in 1901 to designs by Sheaff and Jaastad. The riverfront location was important because coal was delivered up the river on barges to provide fuel for the boilers that fired the generators. Although coal has been supplanted by fuel oil (burned in winter) and by natural gas (burned in summer), the building still dominates its section of the riverfront.

The Western Avenue power station is a massive red brick structure measuring 100 by 150 feet. Two principal spaces, each full height, comprise the interior. Along the front is a generator room lighted by eight arched windows on Memorial Drive and two on Western Avenue. Behind is the boiler room, approximately the same size and lighted by a huge arched window opening on Western Avenue. The tall cylindrical brick chimney that originally served that plant has been replaced by two lower iron chimneys. Other alterations include new fenestration (considerably less effective than the original dark sash with radiating muntins) and a raised roof and brick parapet (replacing the original copper cornice surmounted by an iron grille).

Next to the Longfellow Bridge, at 215 First Street, is a much newer power plant that generates three-quarters of the Light Company's present output. Built in 1947-49 to designs by Gilbert Associates, the Kendall power station has been enlarged several times since construction. Fig. 325 shows it as first built. Clean lines, sharp edges, and horizontal or vertical window groupings put the building in the same stylistic category as the nearby and nearly contemporary Cambridge Parkway buildings (such as Fig. 318). Visible in the photograph is an enclosed chute for bringing coal into the plant from a yard alongside the Broad Canal, where coal deliveries were made. Coal, however, has almost never been used at the Kendall plant; oil and natural gas are burned instead, as at Western Avenue.

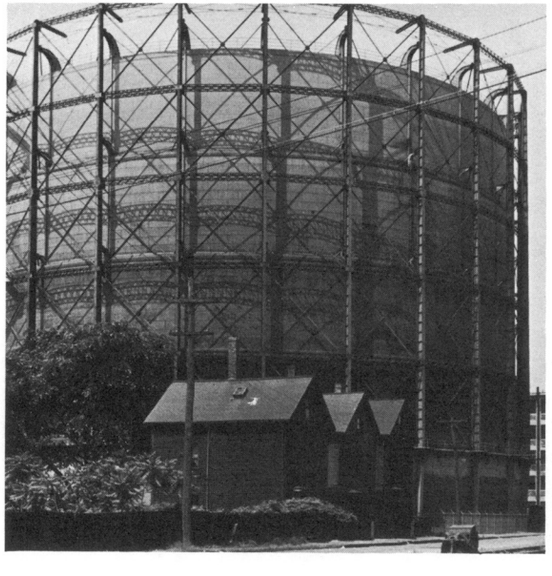
324. WESTERN AVE. POWER PLANT, 867 MEMORIAL DR., 1901. SHEAFF & JAASTAD, ARCHITECTS

325. KENDALL POWER PLANT, 265 FIRST ST., 1947-1949. GILBERT ASSOCIATES, ARCHITECTS

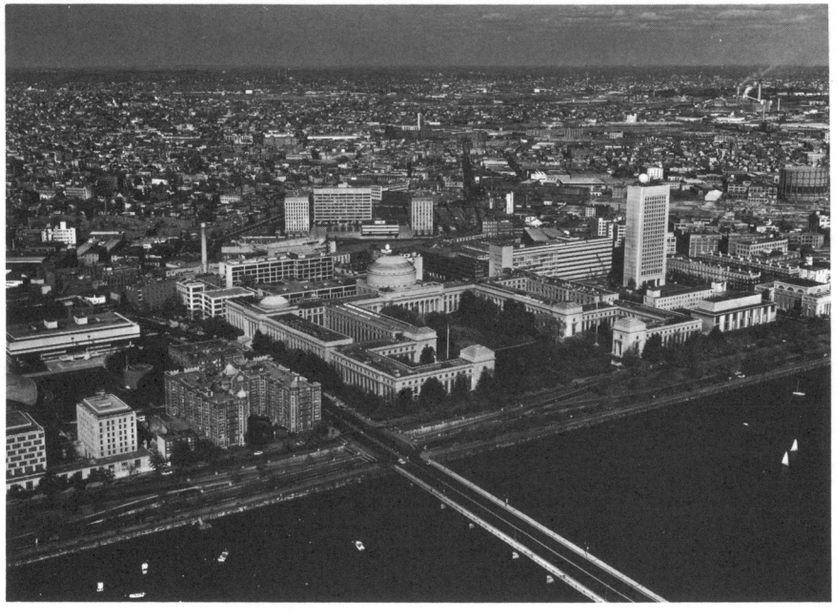


As piped-in natural gas has replaced manufactured gas, the Cambridge Gas Company operations (located behind the Kendall power station and on the far side of Third Street) have required considerably less space. Only one of the original brick buildings of the gasworks has survived. Although rebuilt inside and converted from a coal-gas purification building to a meter shop, it preserves its original 1871 appearance on the outside (Fig. 326). Other processing buildings and coal yards have been eliminated, but the most apparent visible change has been the disappearance of most of the large cylindrical gasometers that formerly dominated the Kendall Square district. Replacing them and a miscellany of other buildings have been the large-scale new complexes of the Transportation Systems Center (Fig. 279) and Cambridge Gateway (Fig. 280). This tendency of manufacturing and storage facilities to give way to office and laboratory space seems likely to continue in Cambridgeport, as one by one the large early 20th-century industrial complexes succumb to obsolescence and move to new facilities elsewhere. Cambridgeport is becoming less and less an industrial district, but the impact of the industrial past will linger for a long time to come.

326. CAMBRIDGE GAS CO. BUILDING, THIRD ST., 1871



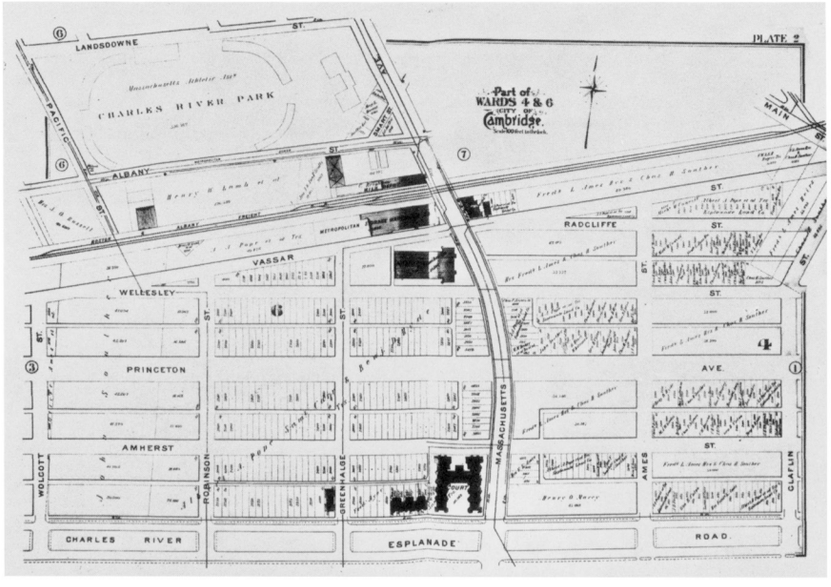
327. GASOMETER, MUNROE ST. NEAR THIRD ST. 1930's PHOTO



Massachusetts Institute of Technology

Although M.I.T. has been in Cambridge less than sixty years, it has handsomely adorned its Charles River frontage and has produced a number of individually noteworthy buildings. Key points in the development of M.I.T. architecture were the initial period of monumental classicism, the change in style that began shortly before World War II, the subsequent commissioning of buildings by important modern architects, and the more subtle change —— in the direction of greater environmental coherence —— that began as the institute entered its second century in the 1960's. This section will first consider the siting of M.I.T. buildings, then will discuss the buildings themselves, in roughly chronological order.

Before M.I.T. made its decision to come to Cambridge in 1911, the filled land it now occupies was mostly vacant (Fig. 328). Laid out in residential lots of row-house width, the land had hardly developed in the years following the opening of the Harvard Bridge in 1890. The most significant structures in the vicinity, all still remaining and all now owned by the institute, were Riverbank Court on Memorial Drive (Fig. 54; now M.I.T.'s Ashdown House), the City Armory at Massachusetts Avenue and Vassar Street (Fig. 245; now duPont Center Gymnasium), and the adjoining Metropolitan Storage Warehouse (Fig. 320; still used for its original purpose though owned by M.I.T.). All these buildings were built of red brick and had medieval stylistic overtones. More akin stylistically to what M.I.T. would conceive and build was the International Shoe



328. M. I. T. SITE BEFORE THE COMING OF THE INSTITUTE.
PLATE FROM 1903 CAMBRIDGE ATLAS

329. INTERNATIONAL SHOE AND LEATHER EXPOSITION BUILDING,
100 MEMORIAL DR., 1908. EDWARD T. P. GRAHAM, ARCHITECT

and Leather Exposition Building (Fig. 329), designed by Edward T. P. Graham and built in 1908 on the present site of 100 Memorial Drive. The style of this domed, stucco-covered structure was "Exposition Classical," almost inevitable for such a building in the decades following the World's Columbian Exposition of 1893 in Chicago. Despite a similarity in appearance, there is little likelihood that the original M.I.T. buildings were directly influenced by the Cambridge exposition building; Beaux Arts classicism was firmly established for fashionable institutional architecture and would undoubtedly have been used in any case.

M.I.T., founded in 1860, built its first buildings in the vicinity of Copley Square in Boston. After half a century, cramped for space in its original location, the institute purchased 43 acres of land east of Massachusetts Avenue in Cambridge, extending from the railroad right-of-way behind Vassar Street to the Charles River. To acquire this land, M.I.T. had to negotiate with 35 different owners (the largest of which was the Ames estate) and also with the City of Cambridge, in order to get restrictions removed and streets closed. The city was reluctant to lose potential tax revenues from so large a parcel of land (even though it was then undeveloped) but relented when the institute threatened to move to a large site available elsewhere.

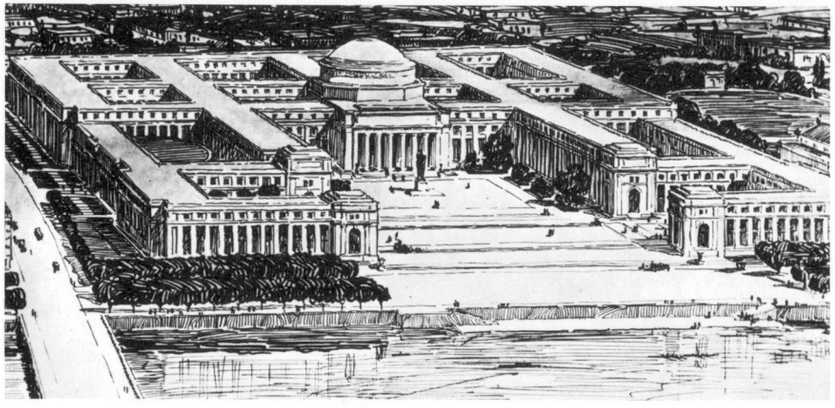
Siting of M.I.T. Buildings

M.I.T. faculty and alumni were determined to build student facilities on the Cambridge land as well as academic and laboratory buildings. The proposed location for student facilities was along Massachusetts Avenue, near the residential district around Riverbank Court rather than near the manufacturing district on the north and east edges of the property. Richard Maclaurin, the president under whom M.I.T. made the move to Cambridge, assured faculty and alumni that the new institute would not be a series of factory-like buildings or skyscrapers but a "great white city" on the river.

M.I.T. commissioned Welles Bosworth, an alumnus of 1889, to design its new buildings. After attending M.I.T., Bosworth had studied for several years at the Ecole des Beaux-Arts in Paris and had worked for Carrère and Hastings in New York. While with the latter firm, he did block plans for the Pan-American Exposition of 1901 in Buffalo and was sent to the exposition as resident architect. At the time he was commissioned by M.I.T., he had a successful New York practice that included work for the Rockefellers; after World War I he worked on the restoration of Versailles and designed the American Telephone and Telegraph Company building in New York. President Maclaurin noted that Bosworth was chosen not only for his excellent design capabilities but also for his landscape and exposition skill, which would ably determine the proper simplicity and grandeur demanded by the magnificent site.

Bosworth reversed the scheme envisioned by the institute, feeling it important to have the academic or study building on the western section because of proximity to the car lines; he thought that the Kendall Square subway would provide adequate and facile access to student facilities placed on the east side of the plot. The study building (Fig. 330) was planned as one large, continuous corridor. Its extensive projections were based on monumental Beaux-Arts Classical buildings with extended wings around major and subsidiary courtyards and with a central pavilion that housed (in the case of a university) a library covered by a dome. The length of these wings allowed connections between the various working laboratories and office-classrooms along an indoor corridor that protected the students from the rigors of a Cambridge winter.

The Bosworth plan shown in Figs. 330 and 331 used the river bank as part of the great main court, climaxing a series of descending paved terraces with a platform at water level. His design for Walker Memorial, the student dining and recreation building, used the same scheme (see Fig. 336) with rows of trees that flanked the sides of the court and the roadway along the river. Here, the platform was extensive enough to function as a boat-launching place. The final court with

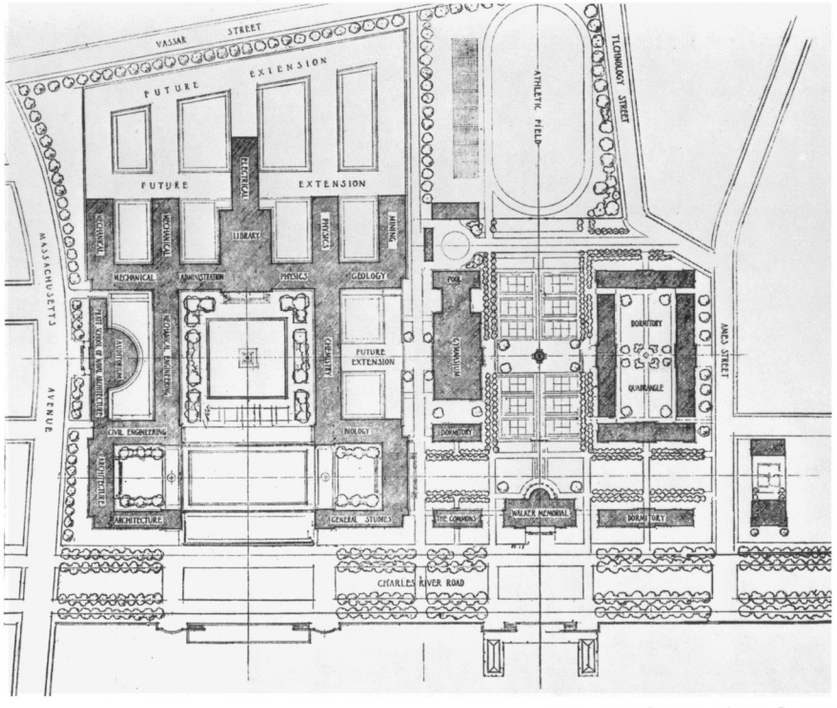


330. DRAWING OF M.I.T. MAIN COMPLEX, 1913. WELLES BOSWORTH, ARCHITECT

steps and unimpeded access to the Charles does not appear in subsequent drawings; in 1916 it may have been feasible to have pedestrian and vehicular traffic cross each other at the Esplanade, but today the highly augmented speed of vehicles makes it nearly impossible to think of direct pedestrian access from the great court to the river, without tunneling vehicular traffic under the present road level. In 1923, however, Bosworth was still working on the relationship of the main court facades to water; a drawing shows a large pool there. Eventually the court was completely landscaped with trees, shrubs, and grass.

The student facilities on the eastern portion of the site included two dormitory quadrangles; the south side of one quadrangle was closed by the President's House. Walker Memorial was for dining and indoor recreation; a running track and athletic field accommodated outdoor sports. After M.I.T. purchased land west of Massachusetts Avenue in 1924, existing buildings there were gradually acquired as well. Apartment houses were converted to student dormitories, and athletic facilities were relocated there. With the additions of chapel, auditorium, and student center, the West Campus has become the center of student amenity that Bosworth had intended would occupy the eastern portion of the original plot. The early dormitories, Walker Memorial, and the Alumni Pool are reminders of the initial East Campus concept.

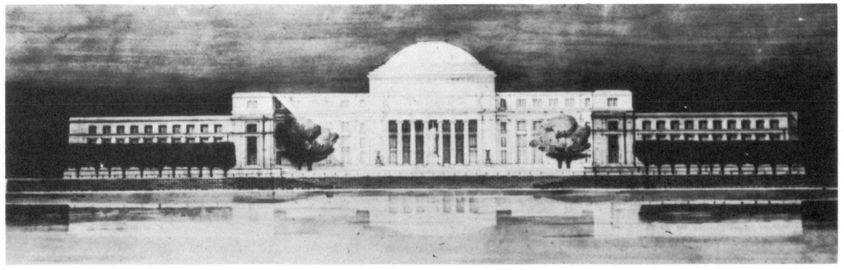
In 1937 the institute built a major entrance on Massachusetts Avenue, on axis with the great dome. The differences between this entrance and that of the main portico are important aspects of the site plan. The main portico with its colonnade and high dome is the focal point of a monumental, organized environment (the "white city"), whether seen directly in front of the pavilions along Memorial Drive, from the river (Fig. 332), or from Boston across the Charles. Long, controlled vistas across an ideal landscape were purposely designed for visual impact (Fig. 333). The main entrance was never used for large-scale ingress but rather for students to obtain use of the courtyard environment between classes. The Massachusetts Avenue entrance, however, is sited directly at the street's edge and is the principal public entrance to the institute.



331. ORIGINAL M.I.T. PLAN

For future expansion, Bosworth designed corridors leading north from the back of the main complex to a terminating corridor parallel to Vassar Street (see Fig. 331). He attempted to shorten distances by breaking the corridors around minor courtyards, but this device was in large part ignored in later building. By 1919, a corridor parallel to the wing along Massachusetts Avenue was added, beginning at the outer back corner of Building 1 around duPont court and extending north to meet the axis of Building 10. A similar parallel corridor was added to the east side in 1932. With the addition of Guggenheim in 1928, Rogers in 1938, and the Center for Advance Engineering Studies recently completed, there is now an unbroken corridor from Memorial Drive to Vassar Street along Massachusetts Avenue. The distance is repeated on the east with Buildings 2, 6, part of 16, and 12. Bosworth's master plan was followed until the early years of World War II, except for athletic buildings placed west of Massachusetts Avenue. Several buildings that do not adhere to the original corridor module plan are placed on the axes he suggested (24, 31), but other buildings hurriedly erected for wartime research are badly located and crowded into the back court (12). This use of several axes, with the multiplicity of forms created in the back court areas, has confused the original clarity of the main complex.

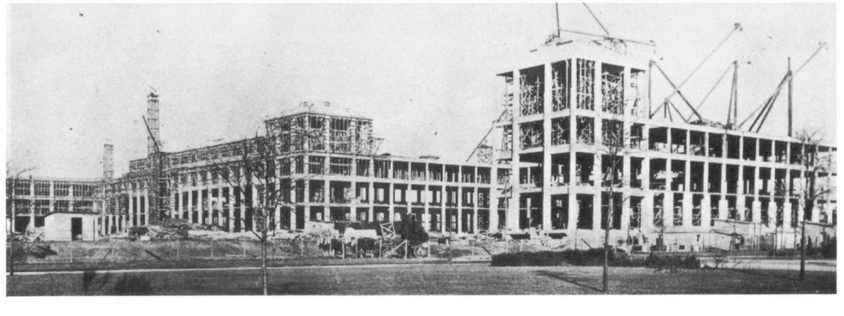
Other facilities, such as married student and faculty housing and parking garages, have been concerns of the last two decades. In 1949 M.I.T. leased land adjacent to the President's House to the New England Mutual Life Insurance Company

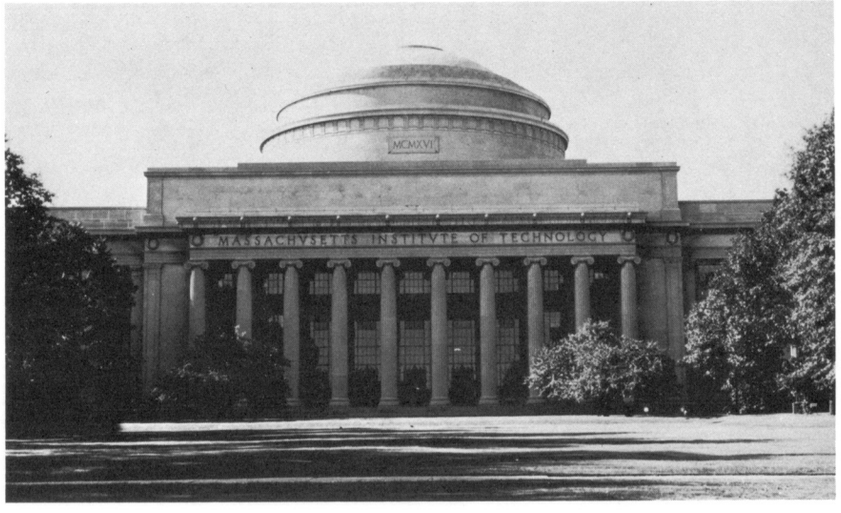


332. DRAWING OF M. I. T. MAIN COMPLEX AS SEEN FROM THE RIVER

333. DRAWING OF COURTYARD FACADE OF
MAIN BUILDING, LOOKING TOWARD BOSTON

334. MAIN BUILDING UNDER CONSTRUCTION, SHOWING CONCRETE BAY SYSTEM





335. M.I.T. MAIN PORTICO AND DOME, COMPLETED 1916

for construction of a large apartment building (100 Memorial Drive, Figs. 59-60), which was intended principally as faculty housing. Married-student and additional faculty housing has since been built at the two extremes of the campus in the Westgate and Eastgate complexes.

At the beginning of M.I.T.'s second century in 1961, with the funding and planning of more construction, the institute began to have architects prepare plans for areas rather than for individual buildings. The back court on the west side, McDermott Court in back of Hayden Library, and the Sloan Campus east of Ames Street are areas designed according to this contemporary policy.

Bosworth's Grand Scheme

The original main building, designed by Welles Bosworth in 1912 and built in 1913-16, has symmetrical wings flanking major and minor courtyards (Fig.330). The facades along the minor courtyards were designed as two-story buildings where giant pilasters alternate with tall vertical windows below a fenestrated attic story. Bosworth intended that the building height should increase from the river to the dome; so a story was added to the wings around the major court. The exterior detailing of pilasters and fenestration was modified slightly to avoid too great a visual difference; on the higher building, the pilasters go through three floors with a recessed string course at the third-floor level.

Facades on the courtyards are clad in limestone. The original back sides, which are now inner court facades, have larger openings and a yellow brick cladding with few stylistic details. The interior of the main building consists of four stories around the minor courts and five stories around the major court. A reinforced-concrete skeletal system with non-bearing partitions is used (Fig. 334), providing flexibility for expansion as departments grow and change.

The main portico of ten Ionic columns (Fig. 335) gives access to a two-story room related visually to the second floor by mezzanine openings defined by paired columns. Over all this is a dome copied after that of the Pantheon in Rome. This dome, resting on two drums of reinforced concrete, is clad in limestone like the exterior main walls. Directly under the dome and its twenty-foot oculus is the Engineering Library, originally the main institute library, the interior of which is also derived from the Pantheon. Niches are recessed behind columns around the perimeter of the large room.

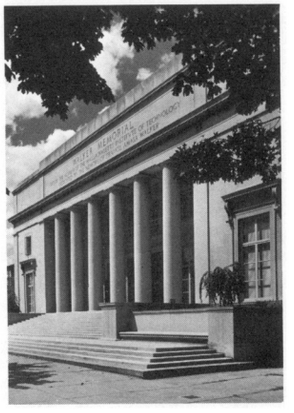
Terminal pavilions complete the main building around the minor courtyards. Bosworth had hoped to terminate other wings with similar pavilions, but this was not done, possibly to allow for corridor expansion foreseen by the design.

Several other buildings were also designed by Bosworth and constructed in 1913-1917. Walker Memorial is seen in one of Bosworth's drawings with a rounded portico of Ionic columns (Fig. 336) like those of the main building, but this repetition of the main motif was eliminated in favor of a flat facade with Doric columns (Fig. 337). These plain columns echo the simple pilaster system of the sides of the main building, and the flat portico keeps the facade in line with that of Building 2 along Memorial Drive. Dormitories included the East Campus Houses and Senior House, an L-shaped dormitory that flanks two sides of the President's House. The latter (Fig. 338), inspired in part by the Petit Trianon at Versailles, was initially occupied by President Maclaurin, for whom the main building (3, 4, 10) is now named. Pratt School of Naval Architecture, erected in 1920 as a corridor parallel to Building 3, repeats the design of the main building, except that no windows show on the attic level on the street face, so that window rows remain constant.

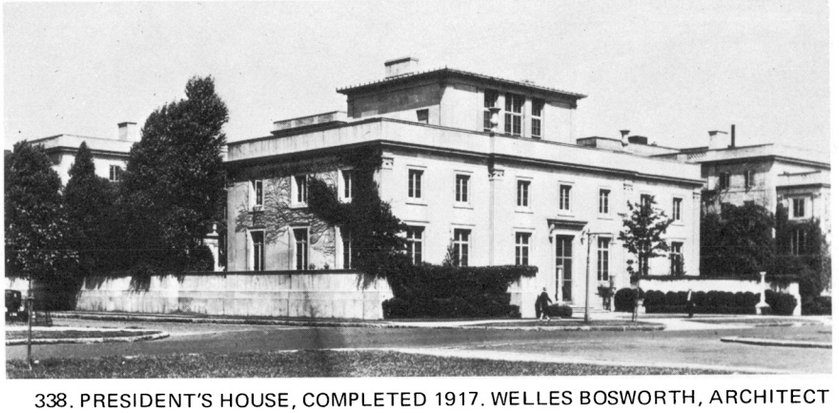
Harry J. Carlson, an alumnus of 1892, was associated with Bosworth in the design of East Campus House dormitories, begun in 1924. These dormitories are five stories of yellow brick articulated by giant fluted limestone pilasters through three stories and plain pilasters through four stories at the corners. Carlson designed the Guggenheim Aeronautical Laboratory (Fig. 339), built in 1927 following the design system of Pratt; Carlson added windows to the attic in the manner of Bosworth's initial design for the main court facades. Although it was at the north end of the axis parallel to Massachusetts Avenue, the Guggenheim building was not connected to the main group. Carlson was the architect for another automotive and aeronautical engineering building in 1928, the Sloan Laboratories (Building 31), located in the court north of the main building. This building was extended and altered in 1940 and after by Anderson and Beckwith. The Eastman Laboratory for Physics, designed by Carlson and built in 1932 parallel to the original east corridor, reiterated the design of Pratt. Carlson also designed the Sailing Pavilion, built in 1936 to augment the institute's recreation facilities. The Sailing Pavilion is located where the terraces in front of Walker Memorial had ended in Welles Bosworth's original scheme.

In 1937 the present Rogers Building (Fig. 340) was built at the northwest corner of the main complex. Named after William Barton Rogers, the founder of M.I.T., the building accommodates engineering labs and the School of Architecture. The scheme includes a monumental entrance from Massachusetts Avenue on axis with the main dome. A smaller version of the main portico, the Rogers entrance

336. EARLY DRAWING OF WALKER MEMORIAL, 1913. WELLES BOSWORTH, ARCHITECT

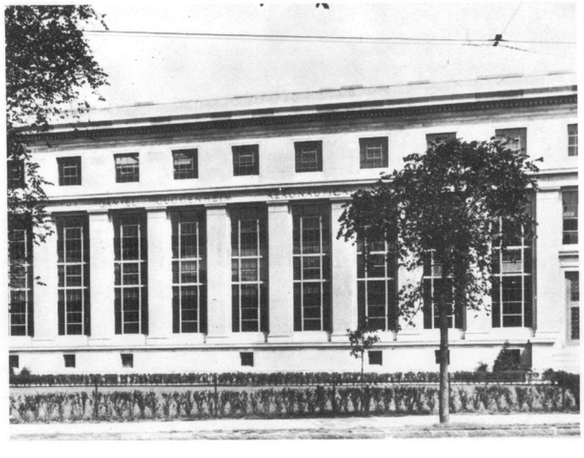


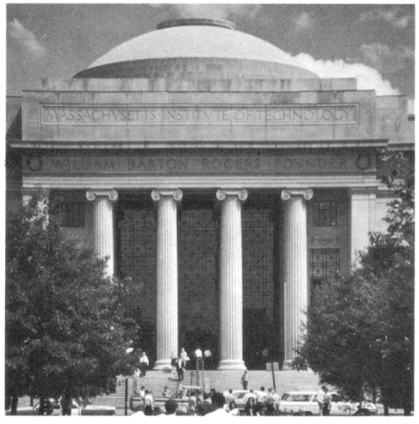
337. WALKER MEMORIAL AS BUILT



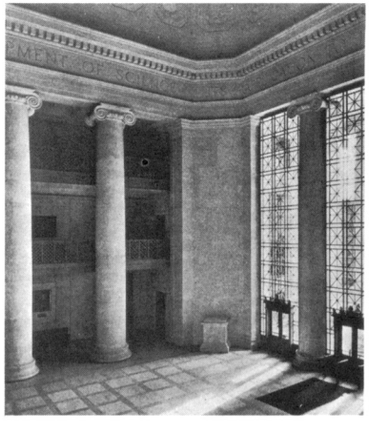
338. PRESIDENT'S HOUSE, COMPLETED 1917. WELLES BOSWORTH, ARCHITECT

339. GUGGENHEIM AERONAUTICAL LABORATORY, 1927. HARRY J. CARLSON, ARCHITECT

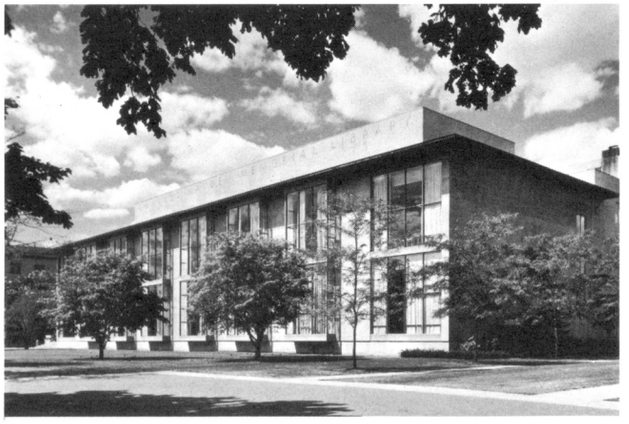




340. ROGERS BUILDING, 1937.
HARRY J. CARLSON, ARCHITECT.
WELLES BOSWORTH, CONSULTING ARCHITECT



341. ROGERS BUILDING.
INTERIOR OF MAIN FOYER



342. HAYDEN LIBRARY, 1949. VOORHEES,
WALKER, FOLEY & SMITH, ARCHITECTS

has four Ionic columns with pilasters at each edge of the portico, a simple entablature, cornice and attic, with a low dome rising over the three-story foyer. There is a cut-back behind the outer row of columns, as the floors actually protrude onto the porch, leaving pairs of two columns at the actual entrance. This motif is repeated in the foyer. Each side of this space, as an entrance to corridors behind, is articulated by two enormous columns through three floors, and each floor has balconies overlooking the foyer (Fig. 341). Harry Carlson, who designed the Rogers building with Bosworth as consulting architect, described the Rogers portico as "the principal public entrance....Inside will be a great lobby surrounded by stone Ionic columns and over this a dome, the top of which is 90 feet above the first floor, a noble entrance to a noble group." The interior surfaces of the corridors and laboratories, like the original back facades, have few stylistic details.

In view of the persistence of this powerful image, it is not surprising to find at M.I.T. later buildings with a residual classical vocabulary related to that initiated by Bosworth. Charles Hayden Memorial Library, for example, is couched in terms of the main building, but the components are reversed on the river side (Fig. 342). To obtain more light and space for reading and viewing the water, the tall windows protrude out beyond the plane of the wall. There is a courtyard within the building as well as an open terrace between the library and Building 2. Voorhees, Walker, Foley and Smith were the architects for the library, which was built in 1949. Ralph Walker, an M.I.T. alumnus, was the principal designer.

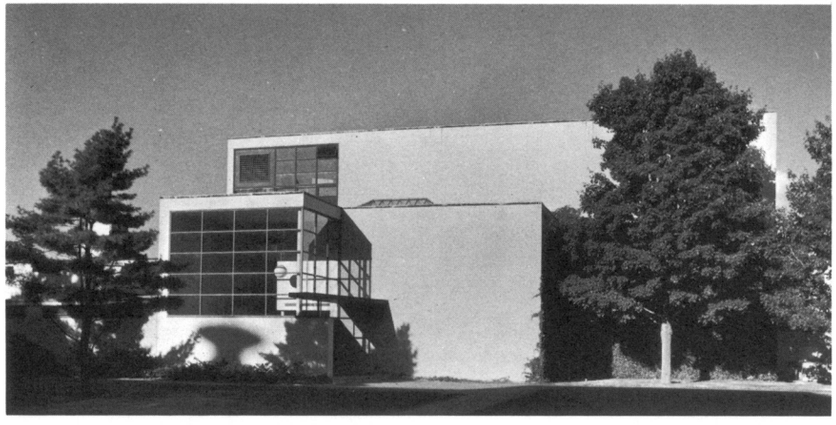
In contrast to the Rogers lobby, the entrance chamber behind the main entrance is only two stories high and is only the width of the corridor plus an office bay on one side. It functions mainly as part of a two-directional passage that allows a view of the court and the river; in addition, it now contains temporary kiosks for student activities. Interior and exterior are essentially reversed in the two entrances, an ingenious solution to the practical exigencies of the site. Differences notwithstanding, monumental classical schemes dominate the two major public faces of the institute, controlling its visual impact and the route of major ingress to its laboratories.

International Style

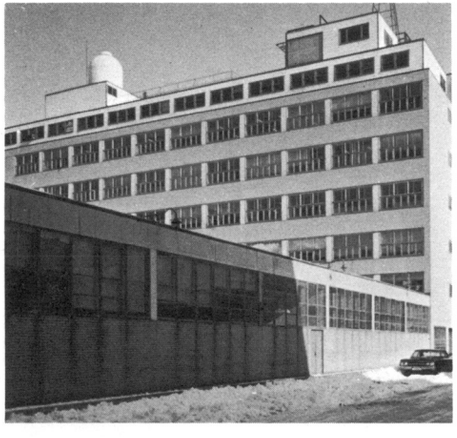
At the same time that the Rogers Building's portico and dome proclaimed the classical image on Massachusetts Avenue, young alumni of the institute, architects conversant with European works of the period, were eager to establish contemporary architectural principles. Lawrence B. Anderson and Herbert L. Beckwith, alumni of M.I.T. and members of the architecture faculty, were commissioned to enlarge the institute's athletic facilities. Briggs Field House, located west of Massachusetts Avenue on part of the land acquired in 1924, was built in 1939 of simple geometric forms of brick and glass. Anderson and Beckwith next designed the Alumni Swimming Pool (Fig. 343), built in 1940, one of the first examples of the International Style in Cambridge and a landmark building at M.I.T. Built of yellow brick and glass, it has a huge south-facing window that allows the entire pool surface to be sunlit in winter, while the sun strikes only the south deck in summer. On the west side is an elegantly balanced asymmetrical portico entry.

Building 24 (Fig.344), designed by Anderson and Beckwith and built in 1941, was the first International Style office and laboratory building at the institute. Its characteristic features include bands of glass between columns and spandrels of yellow brick. On the west is a one-story wing for large laboratories. The same architects also remodeled and extended Building 31 (Sloan Laboratories) with the same glass and yellow brick wall scheme.

After World War II, in 1947, Anderson and Beckwith added Rockwell Cage next to Briggs Field House. The design of Rockwell Cage (Fig. 345) was shaped by the availability to the institute of war-surplus wooden trusses, which were brought to Cambridge from Virginia. Other athletic facilities by Anderson and Beckwith were an addition to the Armory in 1957, creating the duPont Athletic Center (Fig. 245), and the Pierce Boathouse on Memorial Drive in 1958. Anderson and Beckwith also designed the ONR Generator (Fig. 346), built in 1948, the largest Van de Graff electrostatic generator at M.I.T., used in precision

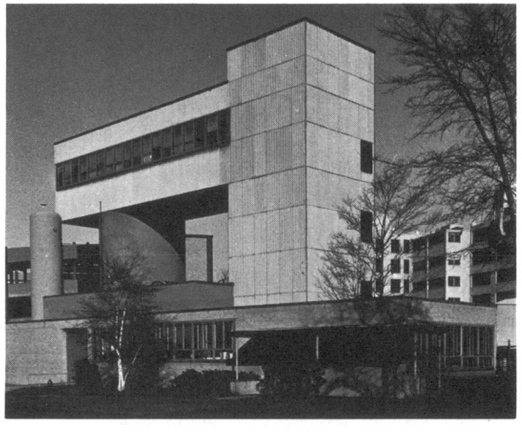


343. ALUMNI SWIMMING POOL, 1940. ANDERSON & BECKWITH, ARCHITECTS



344. BUILDING 24, 1941. ANDERSON & BECKWITH, ARCHITECTS

345. ROCKWELL CAGE, 1947. ANDERSON & BECKWITH, ARCHITECTS



346. ONR GENERATOR, 1948. ANDERSON & BECKWITH, ARCHITECTS

studies of nuclear reactions. It is an excellent example of the direct translation of required configuration into expressive visual form.

Perry, Shaw, Hepburn and Dean designed the Sloan Metals Processing Laboratory at 88 Vassar Street, built in 1950 (Fig. 347). Robert C. Dean was the architect in charge. This laboratory is influenced by its classical neighbors in having wide brick mullions and spandrels and in continuing the five-story elevation and attic window module of the adjoining Guggenheim Laboratory (Fig. 339). However, it looks to the International Style for the raising of its main four-story mass over a glazed lower story (glass between columns), in contrast to the heavy limestone basements of the classical buildings. The top story on the Vassar Street facade also has a band of glass between columns, so that a brick mass rests between glass strips on that side. The extensive glazed area is continued with a glass-enclosed stairwell at the corner of Massachusetts Avenue and Vassar Street. This laboratory occupies a position originally signaled by Bosworth as the northern limit of his expanded corridor system.

347. METALS PROCESSING LABORATORY, 1950. PERRY, SHAW, HEPBURN & DEAN, ARCHITECTS

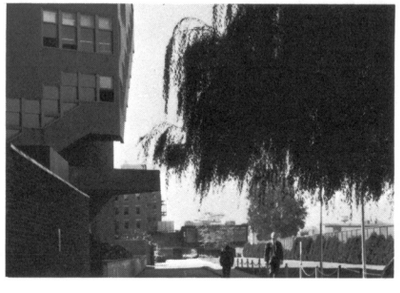
348. DORRANCE BUILDING (RIGHT), 1952, AND ATTACHED WHITTAKER BUILDING (LEFT), 1963, FORMING WALL BETWEEN ALUMNI POOL AND McDERMOTT COURT (LOCATION OF TOWER).
ANDERSON, BECKWITH & HAIBLE, ARCHITECTS

349. COMPTON LABORATORIES, 1957.
SKIDMORE, OWINGS & MERRILL, ARCHITECTS

Anderson, Beckwith and Haible designed the Dorrance Building, the Center for Life Sciences, built in 1952. This eight-story curtain-wall building was the first to exceed the standard M.I.T. height of five stories. Its length was doubled by the addition of the Whitaker Building in 1963, by the same architects, so that a wall was erected between Alumni Pool and McDermott Court (Fig. 348).

A five-story curtain-wall building, the Karl Taylor Compton Laboratories for Electronics and Nuclear Science (Fig. 349), repeats glass surfaces along the western side of the Alumni Pool courtyard. Designed by M.I.T. alumnus Gordon Bunshaft of the New York office of Skidmore, Owings, and Merrill, the Compton Laboratories were built in 1957.

350. BAKER HOUSE, 1949. ALVAR AALTO, ARCHITECT



351. BAKER HOUSE. REAR

The building that drew the greatest attention on the M.I.T. campus following World War II was the men's dormitory designed by Finnish architect Alvar Aalto and built in 1947-1949 (Fig. 350). Through the use of an undulating facade, Aalto was able to give each room a view up or down the river. Especially in its early years, the building dominated the surrounding environment with the powerful sculptural combinations of the river face, the stair on the exterior of the opposite side (Fig. 351), and the cubic blockiness of the juxtaposition of the dining room and the rear entrance portico. Baker House forms a kind of courtyard within its wings, echoing the more conventional courtyard schemes of the other red-brick residential buildings along the river. However, the brick used by Aalto is a special one, oversized and overbaked, and the mortar is dyed to match the brick color. Essentially, nothing detracts from the expressive shape of the building.

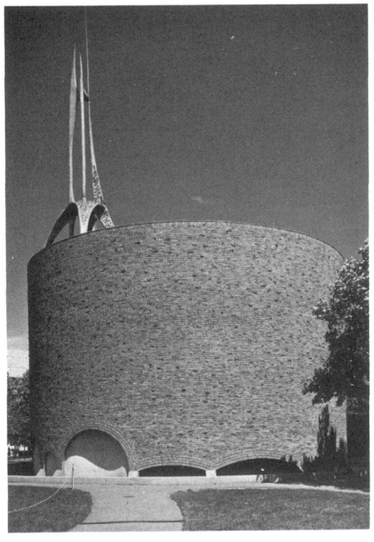
352. KRESGE AUDITORIUM, 1955. EERO SAARINEN, ARCHITECT

Eero Saarinen designed two buildings that also depart radically in concept from other M.I.T. buildings — Kresge Auditorium and the Chapel, both finished in 1955 in the court west of Massachusetts Avenue. The Auditorium (Fig. 352), cited for its structural engineering, is a shell dome carried by three pendentives to steel supports at the ground; glass walls are hung from this structure. Inside are an auditorium, a small theatre, and a lobby from which one can view the imposing mass of the domes across Massachusetts Avenue and the back of Baker House to the southwest. The Chapel (Fig. 353) is a small, cylindrical, red-brick structure with arches at the bottom resting in a small pool. The interior is a second brick shell that undulates against the exterior shell, allowing light reflected in the pool to enter the inner chamber from the arched openings at the bottom of the outer shell. The undulation also stops sound focussing inside. Sculpture is an important part of the concept and design of the Chapel. On the outside, a bell tower by Theodore Roszak rises above the cylindrical mass, and on the inside, a delicate bronze-toned screen by Harry Bertoia hangs behind the white marble altar block (Fig. 354).

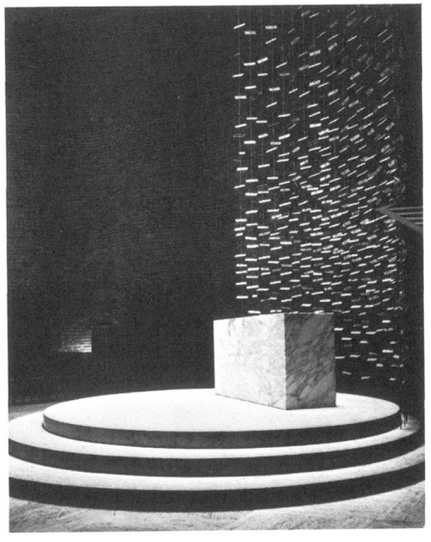
Saarinen paid particular attention to the siting of Kresge Auditorium and the Chapel. As early as 1953 he had also been working on plans for graduate housing and for a center related to these west-court buildings, but nothing was initiated of his plan before his death in 1961.

Recent Developments

With the advent of the 1960's and the beginning of M.I.T.'s second century, the area-planning first contemplated by Saarinen was adopted in several parts of the campus. The firm of I. M. Pei (M.I.T. 1940) was commissioned to design McDermott Court, behind Hayden Library to the east of the main complex. Here Pei designed a new landmark for the institute, the Cecil and Ida Green Center for Earth Sciences, constructed in 1964 (Fig. 355). This 22-story tower is M.I.T.'s tallest building and a stark contrast to the earlier horizontal image. Above an open entrance loggia are twenty floors of uniform space. Built of cast-in-place concrete, the tower has bearing window walls; the mullion columns are gathered by a girder at the second floor and are supported by heavy piers



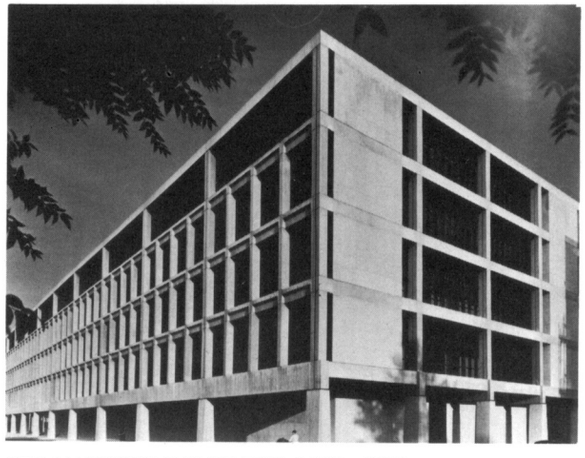
353. M. I. T. CHAPEL, 1955.
EERO SAARINEN, ARCHITECT.
BELL TOWER BY THEODORE ROSZAK



354. CHAPEL INTERIOR.
SCREEN BY HARRY BERTOIA

355. GREEN CENTER FOR EARTH SCIENCES,
1964. I. M. PEI & ASSOCIATES, ARCHITECTS.
STABILE BY ALEXANDER CALDER

356. DREYFUS BUILDING, 1970. I. M. PEI & PARTNERS, ARCHITECTS



357. VANNEVAR BUSH BUILDING, 1965.
SKIDMORE, OWINGS & MERRILL, ARCHITECTS

358. CENTER FOR ADVANCED ENGINEERING STUDIES, MASSACHUSETTS AVE., 1968. SKIDMORE, OWINGS & MERRILL, ARCHITECTS

359. STUDENT CENTER, 1965. EDUARDO CATALANO, ARCHITECT

below. Pei felt that he had recalled Bosworth's system by using a nine-foot module, dark recessed glass areas between columns, and concrete that was close to limestone in texture and color. Pei also designed the Dreyfus Building (Fig. 356) between the tower and the main complex. This building, returning to the original M.I.T. five-story level, also has components more in scale with the original complex.

The Chicago office of Skidmore, Owings and Merrill, with M.I.T. alumnus Walter Netsch in charge, was commissioned to do the back court north of the main building. M.I.T. had embarked on a program of providing centers for technological education and research programs, and the Materials Science and Engineering Center (Vannevar Bush Building, Fig. 357) was one of the first of these. It was built in 1965, immediately behind and connecting to the main building (Building 10). The exposed concrete facade juxtaposes horizontal and vertical structural beams and columns, with glazing recessed behind the facade. There are limestone panels on the end next to Building 7. The five floors are matched to those of the main building; a lobby, machine shops, and mechanical equipment are on the basement floor, and a central laboratory core is on the upper floors. The Center for Space Research at 70 Vassar Street and the Computation Center at number 60 are similar in design to the Bush Building, with the addition of one floor.

The Center for Advanced Engineering Studies (Fig. 358), the one building of the four designed by S.O.M. that fronts on Massachusetts Avenue, and the building that finally closed the institute's Massachusetts Avenue corridor, is designed so that spandrel widths and vertical spacing more closely match those of the earlier classical buildings. The resultant modular harmony is offset by the protrusion of bays on two different planes, by the addition of a story on the "tower" bay, and by the stark contrast of dark glass and mullions with the limestone facing. Thus, the classical modulation along Massachusetts Avenue is broken here.

360. WESTGATE, 1963.
HUGH STUBBINS & ASSOCIATES, ARCHITECTS

361. EASTGATE (1967) AND CORNER OF GROVER HERMANN BUILDING (1965).
EDUARDO CATALANO, ARCHITECT

The protrusion of light-colored masses is repeated much more aggressively across the street in the heavy concrete slabs of the Julius A. Stratton Student Center, designed by Eduardo Catalano and completed in 1965 (Fig. 359). This structure houses dining facilities, a branch of the Harvard Cooperative Society, student offices, and service facilities.

At the western tip of the institute is Westgate, a married-student housing complex designed by Hugh Stubbins and Associates and built in 1963 of exposed concrete with brick infilling (Fig. 360). A tower is used as a focal point of the complex and as a terminating visual point of the institute. The thirteen-story tower is surrounded by three-story walkups for families with children. Westgate residents have a handsome view of the domes of the institute across the greensward of the athletic field.

At the opposite end of the campus, near Kendall Square, rises Eastgate (Fig. 361), the institute's second tallest building. (The Green Building is twelve feet higher, though it has fewer stories.) Eduardo Catalano designed this thirty-story concrete tower for married-student and faculty housing. It was completed in 1967 as part of his development of the Sloan campus, which included the Grover Hermann Building of 1965 (a portion of which is visible in Fig. 361). The Hermann Building has four stories raised over a garage, with the two lower floors angled; it shares a plaza with the Sloan School (Fig.365), the building from which this area of the institute derives its name.

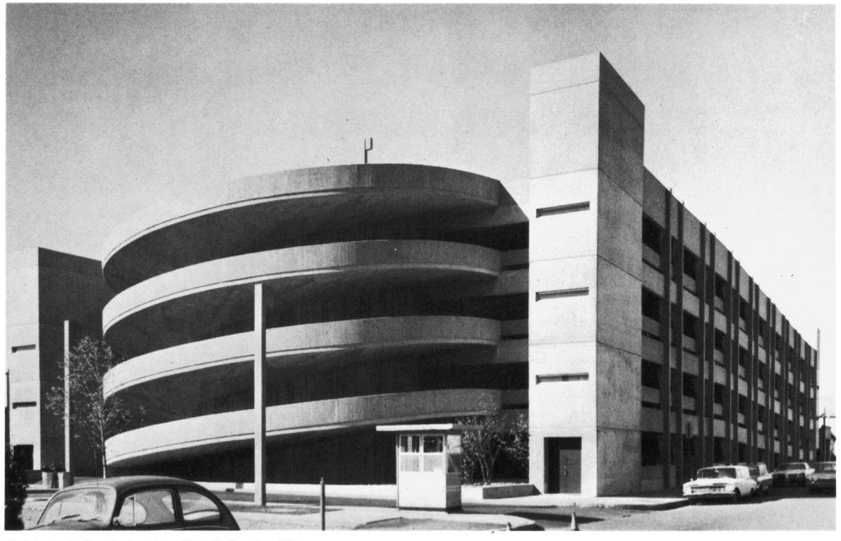
Along the riverfront west of Massachusetts Avenue are two recently completed residential complexes. Accommodating women students of the institute is McCormick Hall (Fig. 362), designed by Anderson, Beckwith and Haible. Built in two stages between 1962 and 1968, McCormick consists of twin residential towers connected by a lower building for reception and dining. The towers are not identical; the one near Massachusetts Avenue has a simpler fenestration

362. McCORMICK HALL, 1963 (LEFT) AND 1968 (RIGHT).
ANDERSON, BECKWITH & HAIBLE, ARCHITECTS

363. MacGREGOR HOUSE, 1970. PIETRO BELLUSCHI AND THE ARCHITECTS COLLABORATIVE, ARCHITECTS

pattern than the left-hand one, which was the first to be built. Limestone cladding makes McCormick stand out from its red-brick neighbors such as Ashdown House (Fig. 54) and Baker House (Fig. 350).

Further along the river is MacGregor House (Fig. 363), completed in 1970. Pietro Belluschi and The Architects Collaborative designed this dormitory complex built of concrete and red brick. A tower and a four-story range of buildings form a courtyard opening away from the river. Bay windows on both the tower and the low building help to take advantage of the river view.



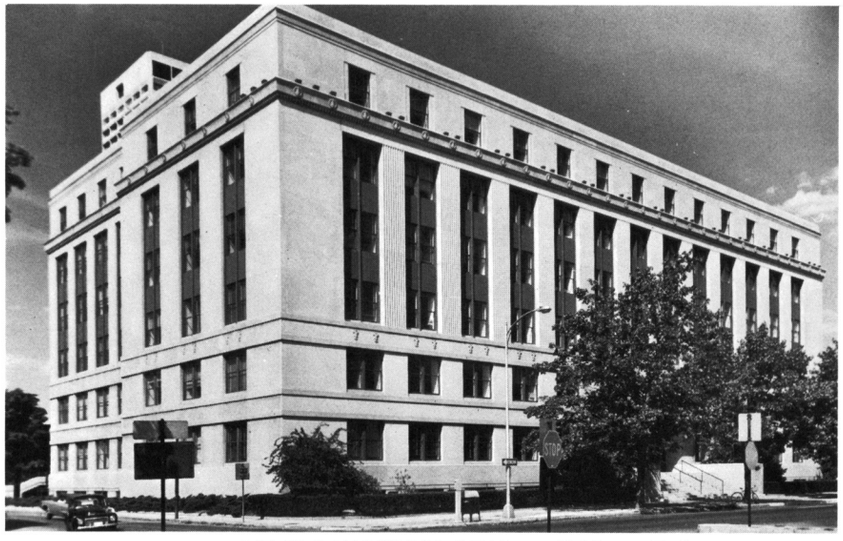
364. ALBANY GARAGE, 1965.
PERRY, DEAN, HEPBURN & STEWART, ARCHITECTS

Increasing intensity of land use has brought a severe parking problem to the M.I.T. vicinity. In an attempt to alleviate this problem, the institute has built three major parking structures in the past decade. First to be built was the steel-frame, continuous-ramp East Garage, designed in 1960 by Marvin E. Goody and Carleton N. Goff. The same team collaborated on the design of the reinforced-concrete West Garage on Vassar Street in 1963. Perry, Dean, Hepburn and Stewart designed the Albany Garage, also of reinforced concrete, in 1965. Seen across vacant land from Main Street, its helical ramp and corner stair towers present a strong and forthright appearance (Fig. 364).

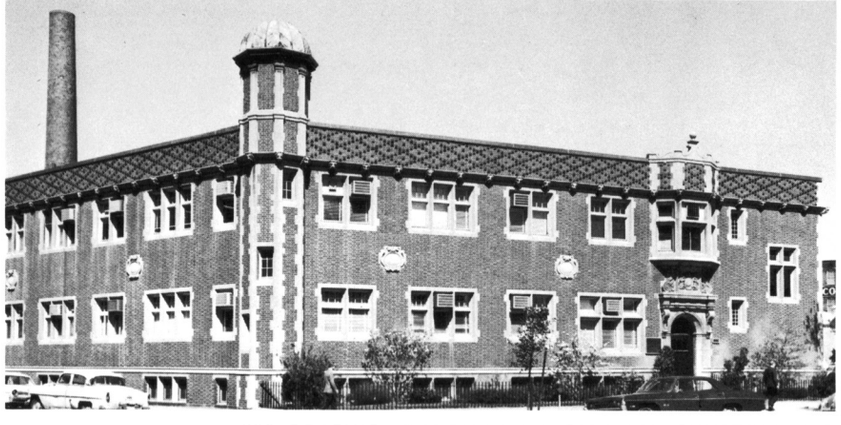
Buildings Converted for M.I.T. Use

As a means of rapidly increasing available space, the institute has in several instances purchased and converted buildings in its immediate vicinity. The former Lever Brothers headquarters at 50 Memorial Drive (Fig. 365), designed by Donald des Granges (M.I.T. 1914) and built in 1938, was bought by the institute in 1951. It is similar to earlier M.I.T. buildings designed by Bosworth in having vertical tiers of windows rising through three floors above a high basement, with a fenestrated attic above. In addition, it has some stylized 1930's motifs such as rounded corners on the projecting entrance bay. The Lever building was renovated as the Sloan School of Management; its top story houses the M.I.T. Faculty Club.

Previously noted as M.I.T. acquisitions were the three major structures that predated the institute along Massachusetts Avenue — Riverbank Court (Fig. 54), the Armory (Fig. 245), and the Metropolitan Storage Warehouse



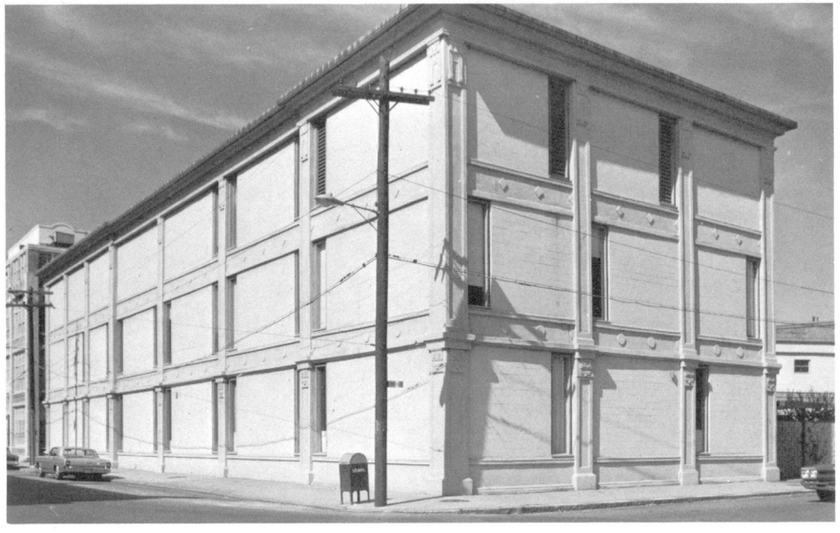
365. SLOAN SCHOOL OF MANAGEMENT, 50 MEMORIAL DR.
BUILT 1938 FOR LEVER BROTHERS. DONALD DesGRANGES, ARCHITECT



366. GRAPHIC ARTS BUILDING, 209 MASSACHUSETTS AVE.
BUILT 1904 AS E&R LAUNDRY. C. H. McCLARE, ARCHITECT

(Fig. 321). Similar in style is the former E & R Laundry at 209 Massachusetts Avenue (Fig. 366), which was built in 1904 to designs by C. H. McClare, was acquired by M.I.T. in 1947, and now serves as the institute's Graphic Arts Building.

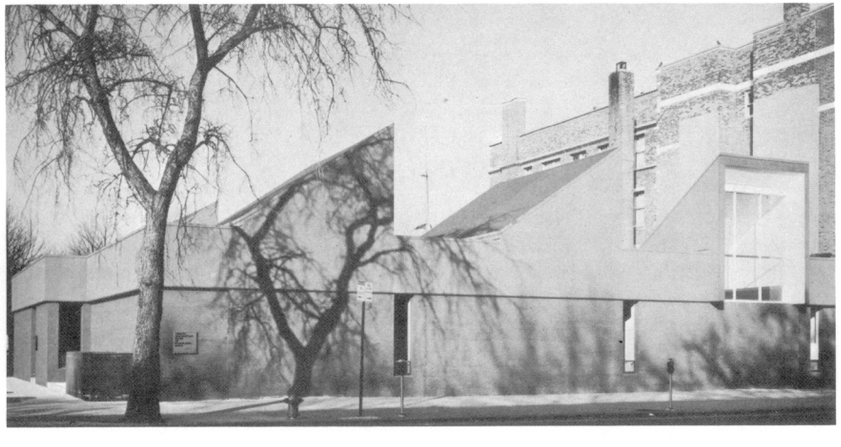
Other converted structures in the vicinity include a long series along Albany Street — the former stables of Brigham's Creamery, later Kraft Cheese, at 138 Albany (1899-1902; now the Nuclear Engineering Center); the former Ward Baking Company at 144-170 Albany (1905; James L. Parsons, Jr., architect; now the National Magnet Laboratory); and a former library-furniture factory at 224 Albany (1908; now one of M.I.T.'s numerous Instrumentation Laboratories).



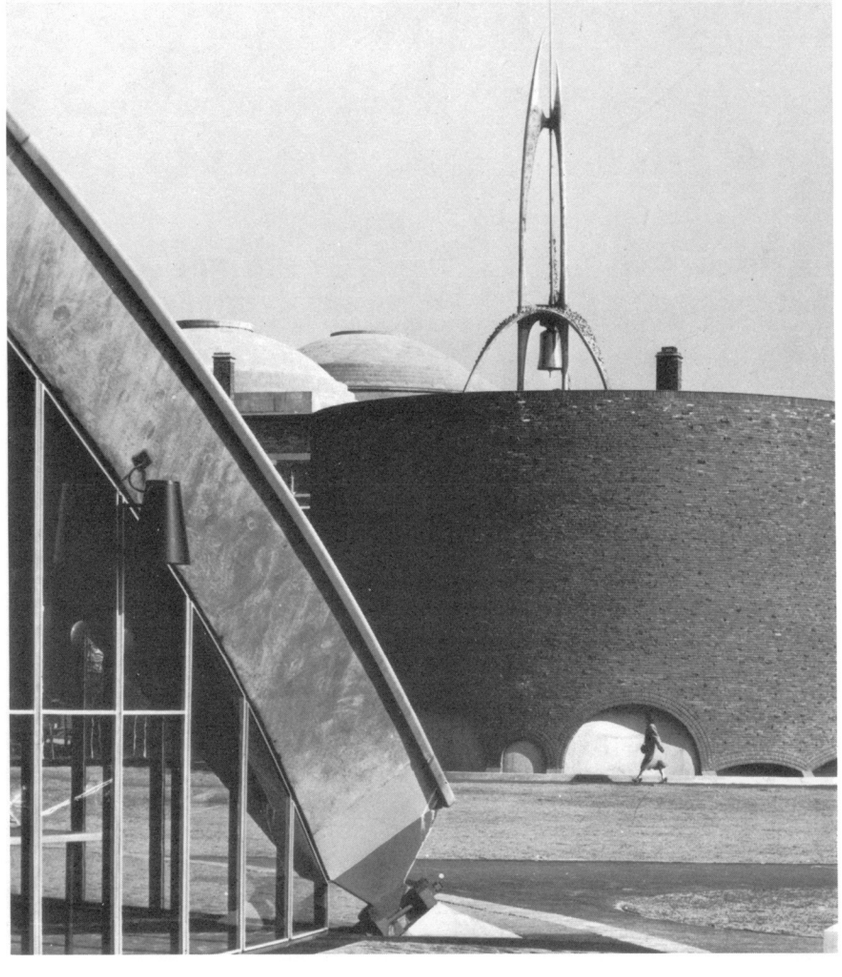
367. PSYCHOLOGY BUILDING, 79 AMHERST ST. 1962 REMODELING BY MARVIN E. GOODY OF A 1912 FACTORY BY MONKS & JOHNSON

368A. HARVARD COOPERATIVE SOCIETY, TECHNOLOGY STORE, 40 MASSACHUSETTS AVE., 1937. PERRY, SHAW & HEPBURN, ARCHITECTS. REBUILT 1967 AS CENTER FOR ADVANCED VISUAL STUDIES

368B. CENTER FOR ADVANCED VISUAL STUDIES, 1967. GOODY & CLANCY, ARCHITECTS



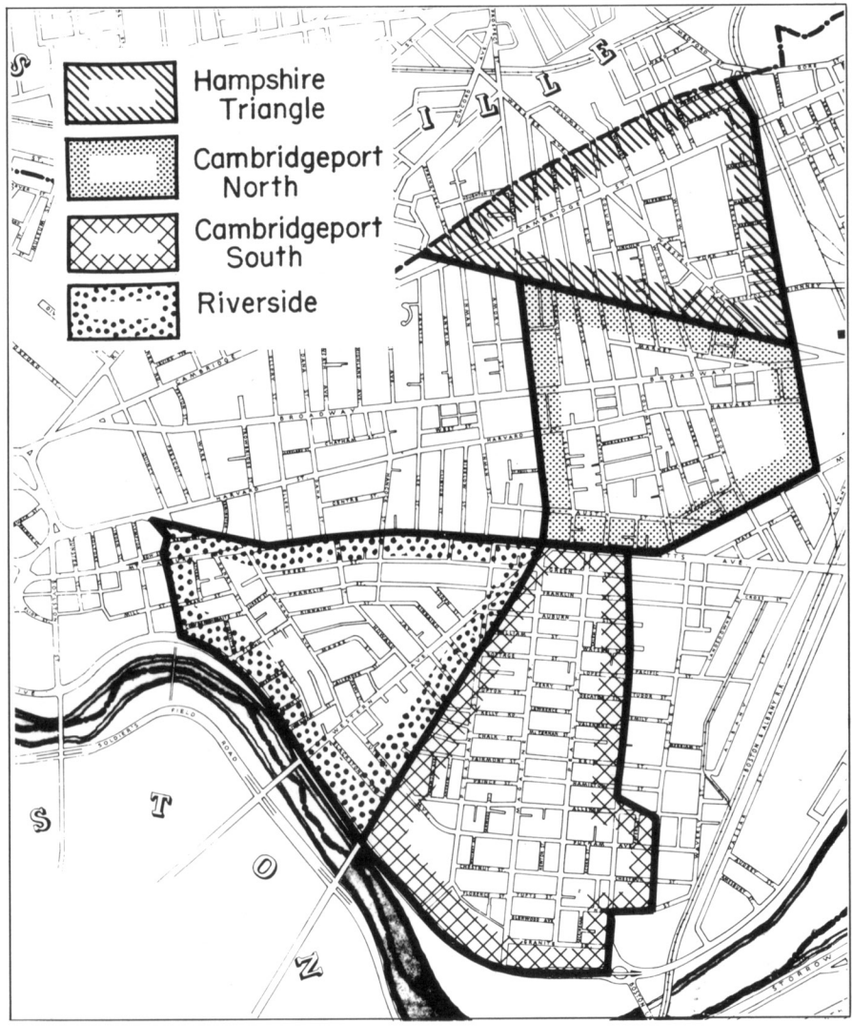
The list could be continued with buildings such as the Psychology Building at 79 Amherst Street (Fig. 367), a 1912 reinforced-concrete factory by Monks and Johnson, handsomely converted in 1962 by Marvin E. Goody, or the Horace Sayford Ford building at Main and Ames Streets, built in 1925 as a candy factory and converted to M.I.T. offices in 1965 by Mark Linenthal. However, industrial buildings such as these are best considered under their original building type; furthermore, M.I.T.'s main architectural contribution to Cambridge has been in new construction rather than in conversions. A combination of the two—— really a rebuilding rather than a conversion —— is the Center for Advanced Visual Studies at 40 Massachusetts Avenue (Fig. 368), the work of Goody and Clancy in 1967. With its dramatic shed roofs admitting light to interior studios, it clearly expresses the modern style of the 60's, just as its predecessor, the Harvard Cooperative Society's Technology branch store of 1937, expressed the chrome-and-glass commercial modernism of the 30's.



PART FOUR: AREA CHARACTERIZATION

Because of size and diversity of the survey area, it is more difficult to characterize and evaluate Cambridgeport neighborhoods than those of East Cambridge or Mid Cambridge. Nevertheless, at least eight subareas can be defined within Cambridgeport as a whole. Four of the eight are primarily non-residential: the Central Square commercial strip; an industrial belt along the railroad from the Somerville line to the river; M.I.T. and the adjacent Kendall Square district; and the riverfront between M.I.T. and Harvard. The remaining four (see map, Fig. 369) are primarily residential: the triangular district bounded by Hampshire Street, Portland Street, and the Somerville line (called the Hampshire Triangle in this report and encompassing the Donnelly Field neighborhood); Cambridgeport North, bounded by Main Street and Massachusetts Avenue, Prospect Street, Hampshire Street, and Portland Street (encompassing the Central Four neighborhood and comprising, together with the Hampshire Triangle, the Cambridge Model Cities area); Cambridgeport South (or what is popularly known just as Cambridgeport), bounded by Massachusetts Avenue, Brookline or Sidney Street, Memorial Drive, and River Street; and Riverside, bounded by Massachusetts Avenue, River Street, Memorial Drive, and DeWolfe Street.

The following discussion concerns the four principal residential districts, each of which is described and evaluated on the basis of architectural quality and potential for historic preservation.



369. CAMBRIDGEPORT RESIDENTIAL SUBAREAS

Hampshire Triangle

Except for the railroad tracks on the east, no natural boundaries or clear divisions mark the limits of the Hampshire Triangle. It is an amorphous district that flows into Somerville on the north and fuses imperceptibly with a similar residential area on the south. It is traversed by two east-west traffic routes (Cambridge and Hampshire Streets) that are lined with commercial buildings, but it lacks an adequate route to carry north-south traffic. Between the major streets lies a tangle of smaller streets in the midst of which emerge three neighborhoods whose distinct characteristics are worth mentioning.

370. WINDSOR ST. BETWEEN HAMPSHIRE AND LINCOLN STS.
IMMACULATE CONCEPTION CHURCH (FIG. 203) IN DISTANCE

The most striking and unified neighborhood in the Triangle is the long stretch of Windsor Street between Hampshire and Lincoln Streets (Fig. 370). This section is largely occupied by Mansard cottages built singly or in pairs. They are placed close to the street and to one another, but there is no sense of crowding, for Windsor Street is unusually wide. That the neighborhood is street-oriented is indicated by the absence of back-yard gardens or an appreciable growth of trees in the center of the blocks. The population density is reasonably high without a feeling of crowding or anonymity.

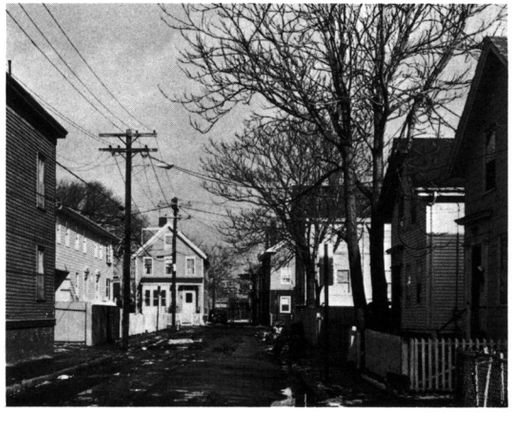
The Windsor Street neighborhood has definite potential for historic conservation. The community is sound; the percentage of owner-occupied houses is high (approximately two-thirds), and one senses the presence of roots and stability. The well-maintained houses are small (usually having seven rooms), and they are manageable for 20th-century living. Structurally sound, most of them are not architecturally well preserved, but this is essentially a matter of unsightly asphalt covering on walls and roofs and ugly plywood front doors, matters that could be rectified with little effort and no more expense than is now going into unsympathetic modernization. Though wide, Windsor Street at present is rather barren. Additional trees along the curb would help enormously, without cutting down on parking space. The Church of the Immaculate Conception with its unusual bell tower (Fig. 203) and the spacious triangular plaza created by the crossing of Webster Avenue form a northern terminus to the area and could be developed into an interesting public space. This stretch of Windsor Street could be one of the gayest, most charming streets in all the city.

Because of the street pattern and type of occupancy, several short streets like Seckel and Plymouth form a natural part of the same neighborhood. Segmentation of the area into short streets that meet at different angles makes for variety and preserves individuality. How well these streets succeed in maintaining these qualities can be seen by comparing them with the long dreary blocks of Columbia, Elm, and Norfolk just two streets to the west, occupied by substantially the same type of dwellings. The latter area packs the buildings close together and often squeezes an additional line of single dwellings into the middle of the block. An admixture of light manufacturing and warehousing further spoils these streets for residential use.

371. DONNELLY FIELD AND THREE-DECKERS ALONG BERKSHIRE ST.
1947 PHOTO SHOWING 1896 PARK SHELTER (FIG. 246)
ON PRESENT SITE OF HARRINGTON SCHOOL (FIG. 226)

Only one block away from the Windsor Street cottages, the second Hampshire Triangle neighborhood is entirely different in feeling. It is substantially larger, almost a quarter-mile in each direction. At the heart lies Donnelly Field, surrounded by ten short streets lined with three-deckers. Despite crowding within the individual blocks, an air of spaciousness pervades the district because the surrounding blocks are short and because wide streets girdle the entire area. The three-deckers facing the park are perfectly appropriate, for structures with at least their height and bulk are needed to give definition to the large open field (Fig. 371). One wishes that other neighborhoods of three-deckers could achieve the same open, placid feeling as this one. Here it is not the detail of the buildings that is important but their mass; still higher buildings could be constructed without damaging the effect of the park, but this would crowd the three-deckers in the surrounding blocks. In contrast to the open feeling preserved around Donnelly Field are Harding and Hunting Streets north of Cambridge Street. Screened off from the green park by the Harrington School, these two streets are grimly narrow and crowded.

The third Hampshire Triangle neighborhood consists of two streets, Lincoln and Union. Union Street (Fig. 372) is fairly long and is built up on one side with simple Bracketed houses set close to the sidewalk. Between them is ample space for trees and gardens. Facing them are a number of three-deckers and row houses, some of which face upon short spur streets like Livermore Place or Union Terrace. Because of this contrast, Union Street possesses greater than



372. UNION ST.
BETWEEN HAMPSHIRE
AND LINCOLN STS.

373. INMAN SQUARE, EARLY 1950's, LOOKING DOWN HAMPSHIRE ST.

374. NORFOLK ST. NORTH OF BROADWAY

normal interest as a spatial composition yet avoids the dreary prospect of monotonous tenements. However, should the small houses and gardens or the few empty lots be replaced by bulkier multi-family dwellings, the street could easily degenerate in appearance into a crowded alleyway. At the north end of Union is Lincoln Street, a short, wide street several of whose houses have good-sized gardens that impart a suburban air to the neighborhood.

Inman Square (Fig. 373) is the commercial focus of the Hampshire Triangle and an area of some potential; any plans for redevelopment of the area should respect its three architectural landmarks. One is the delightful little flatiron building with the bullnose corner at the intersection of Cambridge and Hampshire Streets (Fig. 264), a characteristic Greek Revival commercial building of a type once common in New England towns. The others are the Middlesex Bank building (Fig. 265) with its unusual beveled lintels of granite and the brick fire station (*Mid Cambridge,* Fig. 59) with its terra-cotta reliefs.

Cambridgeport North

South of Hampshire Street lies the other half of the Model Cities Neighborhood, called Cambridgeport North in this report. Rectangular in shape and almost half a mile on each side, it is about the size of East Cambridge. The eastern third lying beyond Windsor Street is largely occupied by factories and housing projects; the remaining section is cut in half by Broadway and Sennott Park. Both halves, in turn, break into distinct neighborhoods as the result of irregularities in the street layout. A number of streets are only one block long, and there is a constant change in the dominant axis between the several small areas.

The largest neighborhood unit consists of five parallel streets (Prospect, Tremont, Norfolk, Elm, and Columbia) running between Broadway and Hampshire Streets. Although comparable in length and breadth to extensions of the same streets north of Hampshire in the Triangle, they are here very different in feeling. This section was initially built up in the 1840's as an uncrowded suburban district, whereas the northern extensions were not occupied by crowded multi-family dwellings until the latter part of the century. Initially the southern parts of all five streets were comparable in appearance and type of buildings, but the similarity is now lost, as each street has changed according to the amount of traffic it carries.

Prospect Street originally had the finest houses. Although a few remain, much of the property is being converted to commercial purposes. The other heavily traveled street is Columbia, which already in the 1870's had begun to attract multi-family dwellings. Well studded with three-deckers and with a manufacturing plant at its Hampshire Street end, it offers little inducement for restoration. However, the four corners of Columbia and Market have good buildings that should be retained as visual anchors for a Market Street restoration.

The most pleasant streets visually are Tremont and Norfolk, which carry less traffic. Norfolk preserves a good visual record of the building of this section of the city through the second half of the last century (Fig. 374). Laid out in the 1840's as a spacious suburban road, it was soon lined with a mixture of double and single houses of moderate size. A single residence on a 49-foot lot at 221 Norfolk was taxed at $2000 in 1847; larger houses for this neighborhood were situated on Broadway and cost slightly more, since a somewhat larger single at 297 Broadway was priced at $2650 in 1844. Early construction centered at the Broadway end of the long blocks, leaving large parcels of land near Hampshire Street to be built upon between the end of the Civil War and 1873. In the 1890's, when Cambridgeport began to experience a shortage of desirable

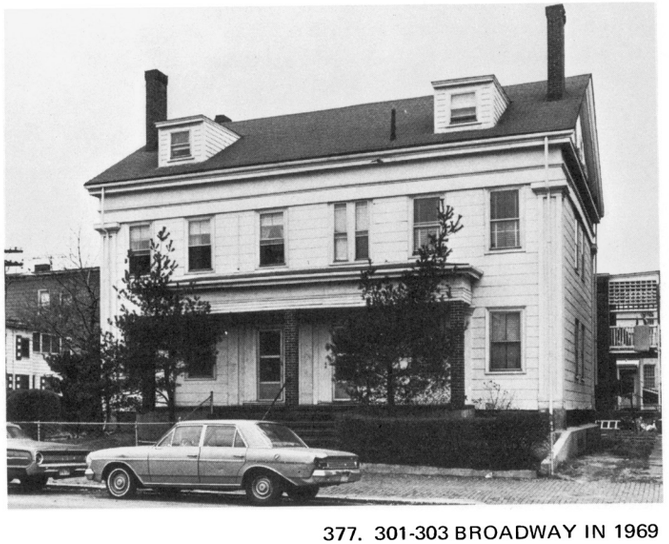
375. BROADWAY, COR. BOARDMAN ST. HOUSE DATES FROM 1846, BROADWAY BAPTIST CHURCH FROM 1889 (SEE FIGS 199-200)

building sites, these streets again attracted the speculative builder. Some single houses were turned into two-family or three-family flats or were moved to the rear of the lot to permit construction of a three-decker in front. The deep back yards of houses facing Broadway were also sold off as sites for three-deckers. Since 1919, when the last building sites on these streets were filled in, the neighborhood has not changed except for maintenance — particularly the addition of storm windows and new exterior sheathing. If the area does not appear visually unified, despite the fact that almost all of the original buildings are there, it is because of these later interpolations. In visual terms the discrepancy of building sizes and styles is diminished because the streets are well filled with trees, a condition that also masks the encroachment of commerce at the corners facing Hampshire Street.

Broadway from its intersection with Market Street west to Inman Street grew up as a strip development with little relation to the streets branching off from it. Like other early thoroughfares, Broadway attracted somewhat better houses than adjacent side streets. Although many residences east of Norfolk have been replaced, enough remains along the south side of the street to indicate its early condition. West of Norfolk on the north side of Broadway, a series of Greek Revival houses constituted the best Greek Revival street in Cambridgeport, a prominence that lasted into the 1850's and 60's and was prolonged up the slope of Dana Hill by a series of Bracketed and Mansard mansions.

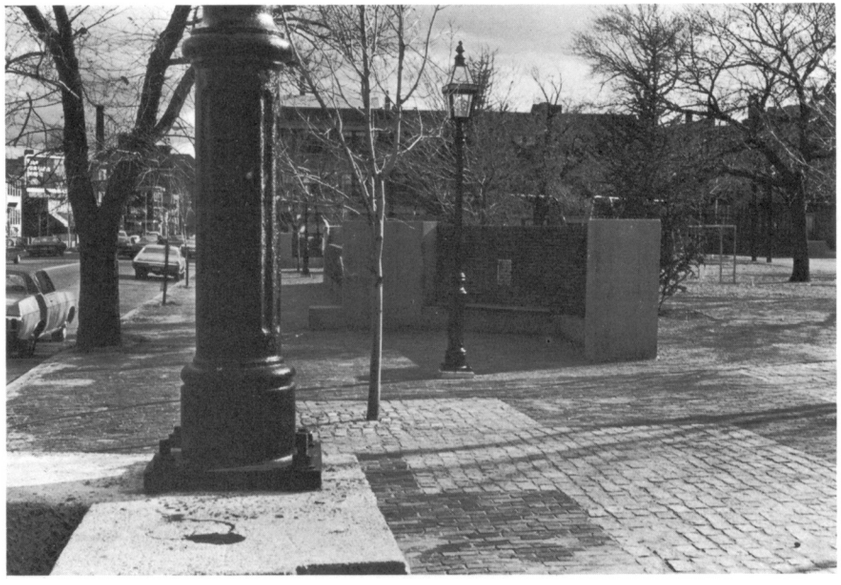
Unfortunately, few of the Broadway houses have survived unchanged. In fairly original condition are the charming little house at number 267 (Fig. 94), half a house at the corner of Prospect Street, and some of the Greek Revival dwellings between Clark and Boardman Streets. A double house at the latter corner (Fig. 375) offers a good indication of the Greek idiom fusing with the Bracketed. Although handsomely located and well maintained, most of the remaining houses on Broadway have suffered abortive attempts at modernization (Figs. 376-377).

376. 301-303 BROADWAY, COR. TREMONT ST., 1837. ISAAC MELVIN, HOUSEWRIGHT. 1937 PHOTO.



377. 301-303 BROADWAY IN 1969

Despite changes, the stretch of Broadway between Norfolk and Prospect Streets (opposite Sennott Park) preserves a leisurely suburban quality. This suburban feeling is a curious contrast to the intention of the men who planned this part of Cambridgeport as the center of the new community. Here in the town square were erected the first church (in 1807), an almshouse (in 1818), and the town hall (1831). But the situation was too remote from the main stream of Cambridgeport life, which flowed along Main Street and Massachusetts Avenue. When the various public structures burned, the square was abandoned as a civic

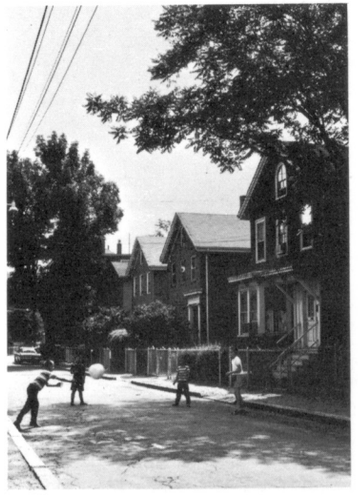


378. SENNOTT PARK AFTER 1969 BEAUTIFICATION. BRUCE SILVERMAN, ARCHITECT. SITE OF TOWN BURYING GROUND, 1812-1865

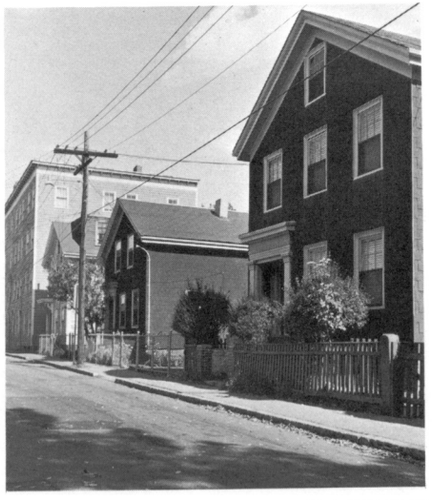
center and was given over to residences. Sennott Park, originally a burying ground, alone survives, in revitalized form after a 1969 urban beautification project (Fig. 378).

A third neighborhood in northern Cambridgeport is the Union-Market Street area. Standing at the Hampshire Street end of Union and looking toward Market (Fig.379), one hardly realizes that one is in the middle of a congested area. With a few exceptions the series of modest dwellings date from the late 1850's, the moment when vernacular architecture was casting off Greek Revival but before it had assumed the elaborate trappings of the Bracketed style. Constructed by several carpenter builders, of whom Isaac Rivers and W. J. Marvin were the most active, the houses are all placed near the street but with wide spaces between them. Those on one side are larger and set back further, and this difference in massing but similarity in style creates a sense of variety that is pleasing. In addition there is one larger Greek Revival house at the north end of the block and two small Federal cottages at the south. The latter were probably constructed in the 1820's on Market Street and moved to their present location by 1853.

At the intersection of Union and Hampshire streets stand two tenements, one four stories tall, the other three. Rising directly from the sidewalk, these buildings are a blessing, as they effectively cut Union Street off from the traffic, noise, and blighted commercial appearance of Hampshire Street (Fig. 380). The only blemish in the block is a badly remodeled and run-down house at the corner of Market. Now a crowded tenement, it could easily be tidied up to the great benefit of both streets. With this exception, however, the street remains one of the quietest and most appealing oases in all of Cambridge.



379. UNION ST., WEST SIDE, LOOKING SOUTH TOWARD MARKET ST,



380. UNION ST., EAST SIDE, LOOKING NORTH TOWARD HAMPSHIRE ST.

Market Street at the south end of Union falls short of its potential. One of the oldest streets in Cambridgeport (laid out before 1830) and containing several houses from the 1820's, it carries little traffic. But the street is interrupted by several clusters of crowded three- and four-deckers and, more seriously, by two garages that damage the street's visual unity. If the non-conforming garages could be replaced by houses moved in from a nearby area and the corner tenement improved, Market and Union Streets could become a significant nucleus of neighborhood rehabilitation.

South of Broadway three smaller neighborhoods emerge. Paralleling Broadway but always less important as a line of traffic was Harvard Street, whose houses and lot sizes were smaller. Its antiquity, however, is greater, and the 1830 Hales map indicates five buildings in this area, though there probably were more. Three of these survive: 172 Harvard (Fig. 73), 212-214 Harvard (Fig. 78), and 3-4 Boardman Place, now hemmed in by later structures. Another early house, 251-253 Broadway, stood originally near the corner of Harvard and Windsor and was moved to its present location when the first Roberts School was built in 1899. Despite this early beginning, the area was slow to grow; several Greek Revival and Bracketed houses were constructed, but not until after the Civil War did a variety of Mansard single, double, and row houses fill the remaining vacant lots.

Austin Street, laid out in 1801, has been cleared of so many buildings to provide parking for Central Square that it has little architectural importance except to establish a boundary between commercial and residential zones. More than a street, however, is needed to divide effectively such disparate zones. Such a barrier is provided by the recently remodeled brick row at 99 Austin (Fig. 381), now converted to offices for Cambridge Community Services. While serving efficiently and looking every bit like modern offices, this brick row built in 1855 screens from view the barren asphalt parking lots on Austin Street while

381. AUSTIN ST., COR. ESSEX ST. 1855 BRICK ROW CONVERTED TO OFFICES FOR CAMBRIDGE COMMUNITY SERVICES. DETAIL, FIG. 92

retaining the scale and mass of residential buildings behind on Essex Street. A better transition between neighborhoods of different character could hardly be imagined.

North of Austin Street, Essex Street has a green and quiet residential atmosphere (Fig. 382). Houses are built closely enough so that one experiences the corridor shape of the open space, and one's attention is pulled irresistibly along the street. Nonetheless, the empty space of the street corridor is filled with enough trees so that the spectator's gaze progresses at an unhurried pace. The trees also screen the excessive height of several three- and four-deckers that would otherwise disturb the landscape. Nor is the domestic scale disrupted by the eight-story Kennedy Apartments for the Elderly or the bulk of St. Mary's High School. The scale of these buildings, which face each other at the end of the block, is so unlike that of ordinary houses that they do not compete with the houses. Altogether, Essex Street offers a particularly worthwhile opportunity for preservation.

Opening off Essex Street are three cul-de-sacs of which Lamson Place (Fig. 383) is the most important. It contains seven row houses that are set at right angles to Essex and hence do not diminish the street's suburban appearance by an unbroken expanse of brick facade. The outlook of the Lamson Place houses is very pleasant, for they look into the tree- and shrubbery-filled backyard of 42 Essex. This yard is essential to the row houses, for without such an outlook, Lamson Place would be a cramped alley.

A third east-west street in this section of town is Washington Street. Laid out in the 1820's, it was of considerable importance even though not a through street. The roadway is unusually narrow, no wider than the short streets that cross it, and houses are situated close to the street. This intimate, small-scale setting evokes an almost Christmas-card feeling of an old-fashioned suburb, a character

382. ESSEX ST.
NORTH OF AUSTIN ST.

383. LAMSON PLACE
(OFF ESSEX ST.)

this area retained until almost 1900, when all leftover spaces were packed with three-deckers or larger buildings. A factory was built here in the 1920's, and within the past decade the neighborhood has been further damaged by several parking lots that punch holes in the streetscape.

Washington Street forms a natural grouping with Cherry and Pine Streets. Here at least seven Federal houses remain in moderately good states of preservation. Notable among them is the Margaret Fuller house of 1807 (Fig. 64), which should be preserved for historical reasons as well as for its architectural value. In addition there are a number of Greek Revival houses, one of them (271-273 Washington) with modest (but now unfortunately modified) temple front. Although this was a good, conservative neighborhood and contained such substantial citizens as the Reverend Thomas Whittemore and historian Lucius Paige, growth stopped in the 1860's. In terms of architectural interest this district contains some of the most attractive buildings in Cambridgeport, but with the expansion of manufacturing in this part of the city, it seems an unlikely area for a preservation program.

384. NORFOLK PLACE, OFF NORFOLK ST.

385. WORCESTER ST.

Although once architecturally important, north-south streets like Prospect, Windsor, and Columbia have been so eroded by commerce that their present relevance to architectural conservation is confined to a few buildings at the intersections of cross streets. The importance here is to the cross streets rather than to the thoroughfares themselves. The only street that retains some charm and a potential for restoration is the stretch of Norfolk Street between Austin and Harvard Streets. One side of the street has tall, closely spaced structures; the other side has a series of widely spaced cottages set back from the sidewalk and shaded by trees. The resultant streetscape is varied and interesting. There are ample setbacks near each end of the street on the crowded side; beyond, the corners are closed by the massive shapes of St. Mary's Church and Rectory at one end and a four-story building at the other. Narrow, closely built, and provided with definite limits, Norfolk Street has its own distinct character.

The west side of this stretch of Norfolk Street is one of the most delightful bits of urban layout in all of Cambridge and definitely should be preserved. The street frontage is interrupted by three short cul-de-sacs or courts, each of which is flanked by porticoed cottages (Fig. 384). These are grouped in such a way as to leave large side yards adjacent to the short courts. At the ends of the courts are double houses on axis along the rear property line. Although the lots are small, the planting is dense enough to block out adjacent buildings, and the amount of open space accumulated in the courts is sufficient to create the illusion of a semi-rural setting.

Even substantial remodeling of three of the cottages has not undone the effectiveness of this grouping. Only one cottage (79 Norfolk, Fig. 96) has escaped desecration, and it is a splendid witness of what the group once was. The rear structures have been less spoiled, but the houses around Norfolk Terrace have been so drastically modified that considerable imagination is necessary to see that they were once similar to their neighbors.

In all, fifteen buildings were constructed in the Norfolk Street group between 1839 and 1846 on land formerly held by the Cambridge Almshouse, which burned in 1836. Despite the consistency of the scheme and the similarity of the houses, no less than five different carpenters were involved. The day of tract housing was fortunately still distant.

This kind of architectural grouping was tried only one other time in Cambridgeport, at 214-226 Allston Street. Here the spacing is more congested, and the houses lack consistency of architectural style. The two intermediate cottages have mansard roofs, while the front houses and the rear double houses have bracket-supported gable roofs. Courts are used elsewhere in the district, and one finds houses telescoped on the front or rear sections of lots, but there is no evidence of attempts to derive artistic advantage from such crowding.

Worcester Street (Fig. 385), which opens off Norfolk Street and constitutes an integral part of the same neighborhood, also offers historic preservation opportunities. Closely built yet uncrowded, the street is only one block long so that the environment is subject to reasonable control; the houses are of practical size and consistent scale and are not dilapidated. Architecturally speaking, some of the houses are excellent, none are bad. Worcester Street would be a particularly regrettable loss if the Inner Belt highway were built along the proposed Brookline-Elm route.

From the map it would appear that Suffolk Street is similar to Worcester, but this is not so. In large part Suffolk Street is crowded with deteriorated double three-deckers. An instructive lesson in the control of urban environment can be gained from the way in which this rather unattractive street has been visually contained by the bulky four-story apartment building and high convent wall that are built out to the sidewalk edges on both corners. Thus the interchange between this street and the more pleasant environment of Norfolk has been minimized.

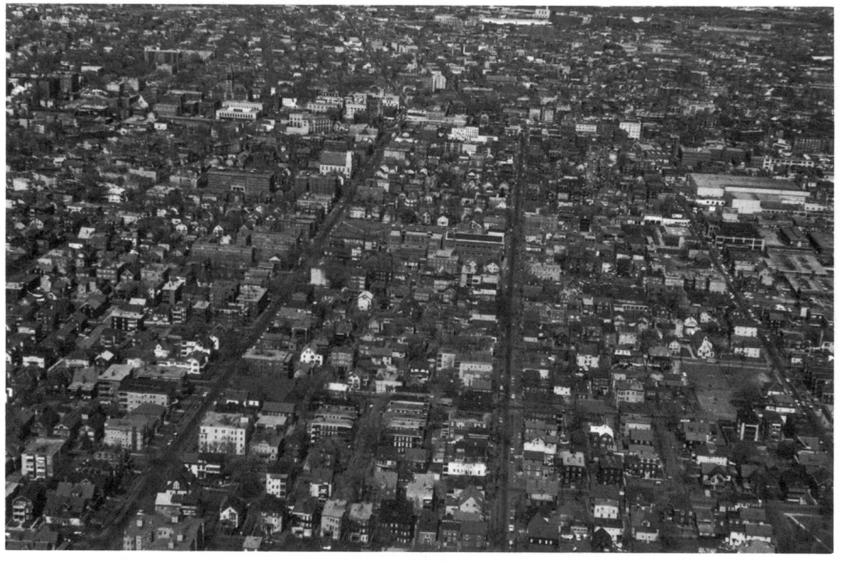
386. NEW TOWNE COURT

East of Windsor Street the character of Cambridgeport is very different. Two large parcels of land, formerly a crowded and depressed district, were cleared to make room for two Federal housing projects just before World War II. Although light and airy and undoubtedly a more healthful environment than the slums they replace, New Towne Court (Fig. 386) and Washington Elms lack visual accent or contrast between spaces. An instructive comparison can be made between these monotonous large projects and the much smaller and more attractive Wilson Court (Fig. 389), built in 1949 on Magazine Street.

Cambridgeport South

The portion of Cambridgeport south of Massachusetts Avenue is more extensive than the northern portion. Street pattern and architectural character suggest two main subdivisions, with River Street the dividing line. The larger of the two sections, located south of Central Square and traversed by a gridiron of streets, is called Cambridgeport South in this report, though most people today know it simply as Cambridgeport. The Riverside district, located northwest of River Street, will be discussed separately.

The main portion of southern Cambridgeport is traversed by four parallel streets —— Pleasant, Magazine, Pearl and Brookline —— that run in a north-south direction from Massachusetts Avenue to the river. Cross streets are narrower than the dominant thoroughfares and are staggered slightly so that few of them are more than one or two blocks long. Only on four streets —— Green, Franklin, Allston, and Putnam —— can one traverse the entire area in an east-west direction.



387. AERIAL VIEW OF CAMBRIDGEPORT SOUTH, 1964. MAJOR NORTH-SOUTH STREETS ARE MAGAZINE (LEFT) AND PEARL

Compared to northern Cambridgeport, this area is pervaded by an air of greater spaciousness and unity. One's first impression of unity is due to the constant direction maintained by the long streets (Fig. 387), the uniform intervals between the cross streets, and the sustained setbacks. The main streets are so dominant that a visitor is at first almost unaware of the cross streets. But as he discovers them, he realizes that they vary considerably one from another. Southern Cambridgeport has more variety than is first apparent.

In northern Cambridgeport the major thoroughfares received the earliest and also the finest houses. In southern Cambridgeport the basis for development was somewhat different, for the streets only had to handle local traffic to and from Massachusetts Avenue. Even after construction of the Cottage Farm Bridge in 1850 (on the site of the present Boston University Bridge), there was little through traffic, because Cottage Farm was still rural. Brookline Street, which leads to the bridge, has become a major thoroughfare only in modern times. The choice of building locations in southern Cambridgeport seems to have been determined by other factors, such as land elevation or proximity to Central Square. It is interesting to observe the sequential addition of cross streets south of Central Square. In 1830 there were only three cross streets; in 1854 there were six (to Upton Street); and by the 1873 atlas the present street layout was virtually complete.

The preference for high land was natural, and hill crests were used for the finest houses. Since land was plentiful, low or swampy areas were simply skipped over until all desirable lots were used. Only then did it become economically feasible to fill in the low areas as locations for factories, warehouses, or multi-family dwellings. In any case the low-lying areas were built late, often for mixed occupancy.

388. AERIAL VIEW OF DANA SQUARE VICINITY, CA. 1950

Magazine Street extends south from Central Square to the site of old powder magazine (hence the street name) on Captain's Island. From the outset Magazine Street was intended to be the area's finest street. Fifty feet wide, it is ten feet wider than Pearl or Pleasant Streets, which parallel it, and it has wider setbacks. It also has the amenity of a residential park halfway along its course. Beginning at the relatively high level of Central Square (sixteen feet above sea level), Magazine Street slopes almost imperceptibly to a low point (ten feet) near Hamilton Street. It then rises gently over a low hill whose 22-foot crest lies between Putnam Avenue and Chestnut Street before dropping off toward Granite Street and the river. The location of the former Captain's Island (now landlocked) is between Memorial Drive and the water.

By the 1840's Magazine Street was becoming important. Washington Allston had situated his studio at the corner of Auburn, and two of Cambridgeport's largest Greek Revival houses bordered the street. The apogee of Magazine Street's fashion was reached shortly before the Civil War, when six mansions were constructed for Cambridgeport businessmen. These buildings were almost as impressive as the largest houses then going up on Dana Hill. Substantial dwellings continued to be built during the 70's, and as late as the early 80's two large Queen Anne houses were constructed near Magazine and Putnam. By 1900, however, the area had passed its prime, as evidenced by conversion of the S. H. Sanborn mansion at number 129 into a three-decker. Further decline of fashion is chronicled by the removal of the A. C. Sanborn and Kimball houses and the substitution of rows of duplexes between 1906 and 1927.

389. WOODROW WILSON COURT, 1949 HOUSING PROJECT OFF MAGAZINE ST. A. J. SCHUMACHER, ARCHITECT

Despite the presence of such fine houses, Magazine Street does not now and probably never did give the impression of an avenue of mansions. Along the half-mile stretch where the mansions were distributed, there were vacant lots, even whole tracts of empty land. The area was simply too extensive for the demand. Had less space been available and the fine dwellings placed nearer together, their impact would have been considerably greater. As it is, Magazine Street has no definable center of interest.

Actually, the two ends of the street retain more interest than the low-lying quarter-mile middle interval. The Central Square end has changed little in the last sixty years, but it was never prepossessing. The collection of churches, apartments, and houses has little in common architecturally, though each recalls some phase of the district's history or has some redeeming feature of scale or architectural detail. The line of brick row houses at 13-21 Magazine, called Allston Terrace (Fig. 144), stands on the site of Washington Allston's studio; the red brick First Baptist Church (Fig. 191) has sufficient height and animation to serve as the focal point for Central Square. Here also a certain restlessness of scale results from the alternation of single dwellings and four-deckers.

Only at Cottage Street does Magazine Street assert itself as a substantial residential area. Yet at Dana Square (Fig. 388) this unity begins to fall apart. Laid out in 1856, the square never fulfilled the Dana expectations of a splendid residential core for a neighborhood of fine houses. Although half a dozen large dwellings were built on or near the square by 1873, much land remained vacant until filled with less impressive structures. The Willard School formerly stood on the east side of the square, but it has been demolished and its site added to the park, which is now almost twice its original size and looks quite empty. The buildings that surround the square do not contain it visually. The double house and three-decker on the east side are not large enough to define the park's limits, while the apartment and parochial school buildings along the south side are incompatible in scale and material with the dwellings along the west and north sides.

390. MAGAZINE ST., COR. FAIRMONT ST. FOUR-STORY BRICK BUILDINGS ARE PART OF WOODROW WILSON COURT

The most interesting feature of this middle zone is Woodrow Wilson Court (Fig. 389). A public housing project built in 1949, it is unusually successful in avoiding the barracks-like anonymity characteristic of many projects. The three four-story buildings key together to break the large interior courtyard into an interesting and lively space; they are also well adapted to Magazine Street. Preservation of a private house with heavily wooded yard at one corner of the block assists in the successful transition of scale from three-story apartments to single-family dwellings (Fig. 390); Wilson Court does not disengage itself from its environment as so many housing projects do; its site planning can serve as a model.

Beyond Fairmont Street for a distance of three blocks the character of Magazine Street is inconclusive. There is an assortment of houses, stores, row houses, and apartments as well as a large lot left vacant by the demolition of a line of row houses. Not until higher ground is reached does the impressive aspect of the street again assert itself. Immanuel Baptist Church, a brick Richardsonian Romanesque building with corner tower, handsomely anchors the corner of Magazine Street and Putnam Avenue (Fig. 197). Here also on the low hilltop three of Cambridgeport's finest mansions once stood amidst large lawns. Only in the two-family houses that replace them is there a feeling of crowding; generally the neighborhood retains much dignity. The last buildings on the street as it descends to the river are three-deckers built soon after 1900.

Pearl Street has always been more modest than Magazine. Because it is narrower and the houses more closely built, the street resembles a space corridor along which one's eye moves at a more rapid pace than on Magazine Street, where the gaze is leisurely and meandering. Because the first houses built here were small, they contrast in scale more sharply with the multi-family units constructed later in the empty intervening lots. The most interesting parts of the street are those where the housing is fairly dense: the row houses south of Green Street (Figs. 138-139) and the double and row houses opposite Cottage Street (Fig. 391). Further south the street's architectural character changes abruptly

391. PEARL ST., COR. WATSON ST., IN 1955. ROW HOUSES BUILT 1887. H. DENNISON, ARCHITECT

392. PLEASANT AND RIVER STS., CA. 1950

several times, but Pearl Street always remains visually separate from its cross streets. Because of this separateness and unevenness, preservation efforts would be best directed at houses that are essential to the architectural integrity of the cross streets.

Pleasant Street has almost the same length and breadth as Pearl, but its urban character is quite different. For architectural quality the most interesting part occurs at the intersection of Pleasant and River Streets (Fig. 392). Fronting on the lively and varied space created by this diagonal crossing are an assortment of very good Greek Revival, Bracketed, and Mansard houses. River Street, unfortunately, is such a major traffic route that the desirability of this portion for living is substantially impaired. South of this intersection Pleasant Street is more deserving of its name. Tree-lined and no wider than the streets that cross it, Pleasant fuses with them and unites them so that one thinks of the whole region

393. FAIRMONT ST. BETWEEN MAGAZINE AND PLEASANT STS.

394. FORT WASHINGTON, WAVERLY ST.
FENCE BUILT 1858. JOHN R. HALL, ARCHITECT

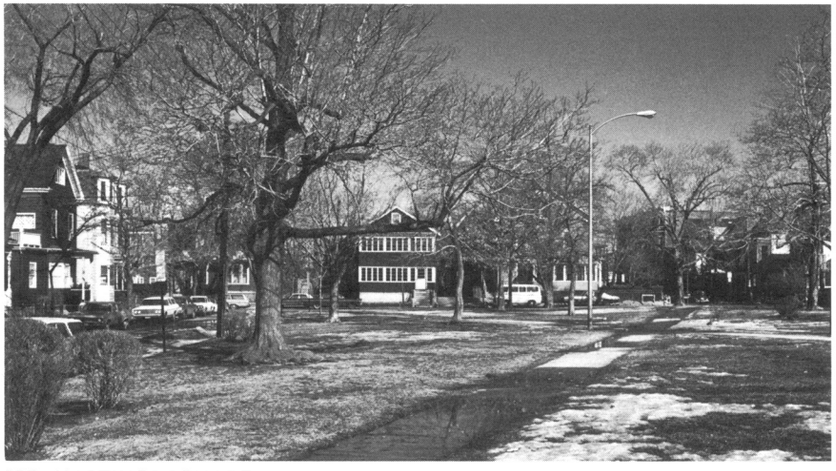
from Upton to Fairmont as a single neighborhood. This does not mean that there is no variation among the cross streets but rather that all of them have more relation to Pleasant than to Magazine or River Streets, which bound the area. Here most of the houses are small but placed on comfortable lots. The dominant architectural feature is the mansard roof, but there are a few Bracketed designs; Chalk and Kelly have several nice Queen Anne designs as well. Some of the houses may now seem drab because of their present skin of asphalt shingles, but this is a superficial defect. Restoration would be easy and inexpensive. More difficult but important would be the removal of one filling station and one brick store building, which badly mar the integrity of the street. Elimination of through traffic on Pleasant Street would also help. The potential of this area for historic conservation is exceptional.

A special word should be said about Fairmont Street, which has particular assets and problems. Except for one ugly two-decker and an absence of trees (a defect easily remedied), the eastern half of Fairmont resembles a Colonial village (Fig. 393). Here are three houses of Federal date, including the center-chimney cottage illustrated in Fig. 82, and several Mansard designs. But west of Pleasant, a most unpleasant crowding occurs where two late three-deckers were sandwiched between earlier dwellings. The rest of the street is good, particularly the handsome double Greek Revival house at 55-57 Fairmont (Fig. 88) and the manner in which the west extremity of the street is dominated by brick construction. Worthy of comment is the intersection of Fairmont and River Streets, where both corner buildings reach the sidewalk and thus shield Fairmont from the noise and traffic of River Street. Also successful is the contrast between the row houses built close to the street on one side and the nicely spaced dwellings with front yards on the other. Fairmont Street is further linked with Fairmont Avenue and Andrew Street. Most of the houses in these streets are double units of only average architecture, but these narrow streets are only one block long, and the spatial relationship of the houses to the street is eminently human. The whole is an area of modest homes whose aesthetic value can be easily but strikingly improved. The major expense would be the removal of the three-deckers that in this particular location are a clear visual and economic deterrent.

Architecturally, Brookline Street is but half a street. One side holds commercial buildings and factories; the other is still largely residential, though here commercialism has gained a toehold in the form of parking lots and machine shops. The dwellings that remain are neglected, and one can see the corrosive influences of commerce at work upon a residential neighborhood. In a few places industrial use extends through half a block toward Pearl Street, but these particular blocks were never wholly occupied by residences.

East of Brookline Street, all the way to the railroad tracks, the area is or could be industrial. Except for a few handsome factories at the northern end, the district is architecturally sterile. Near the southern end, barricaded by warehouses and truck trailers, is Fort Washington (Fig. 394), the city's sole surviving physical reminder of Revolutionary War activity. A worse surrounding for an historic site would be hard to imagine. The setting has been especially bad since the City permitted a trucking company to close Allston Street, thereby cutting Fort Washington off from residential Cambridgeport. The only hope for this historic landmark is that changes emanating from M.I.T. may someday reach here; of particular value would be the reopening of a connection between Fort Washington and the river.

In the realm of urban organization and planning, the biggest surprise awaiting the Cambridgeport visitor is the Hastings Square neighborhood. As one approaches on Brookline Street from Massachusetts Avenue, the quality of the neighborhood declines steadily to Hamilton Street. Yet only three blocks further, one comes abruptly into one of the most pleasant Queen Anne neighborhoods in all of Cambridge. On the crest of a low rise near the former site of the Dana Pine Grove stands Hastings Square (Fig. 395). Projected by



395. HASTINGS SQUARE

1852, it attracted a scattering of Mansard and Bracketed houses in the 1860's, including the much-altered mansion and coach house at 308 Brookline Street. But not until the 80's did the area really blossom. Some thirty dwellings were constructed, the finest within a few doors of the square. This neighborhood is in excellent condition and needs little restoration. Unhappily the Inner Belt would go right through the square and down the middle of the district. The houses remaining on both sides of the highway would become appendages of neighborhoods with less interesting dwellings, and all of the environmental values of Hastings Square would be destroyed.

The paucity of east-west traffic routes south of Massachusetts Avenue has already been mentioned. The staggered street layout creates a series of short residential blocks that are subordinate to the north-south streets. These short streets vary considerably in architectural character and in their potential for preservation. Green and Franklin streets have already been absorbed by the commercial activity of Central Square. Auburn Street, on the other hand, is largely residential. Although five of the Federal houses shown on the 1830 map are preserved, the area acquired a fair number of three-deckers around the turn of the century. What is left is worth preserving, but the street will never be a showplace, and some of the nicest houses would unfortunately be destroyed if the Inner Belt were built. While the scale of Auburn Street is more like that of East Cambridge than any other part of Cambridgeport, that of William Street (the next street to the south) is larger because of the number of double houses. Most of the houses are Greek Revival or Bracketed designs, but the unity of the street is marred by the bulky brick apartment building at the corner of Magazine Street.

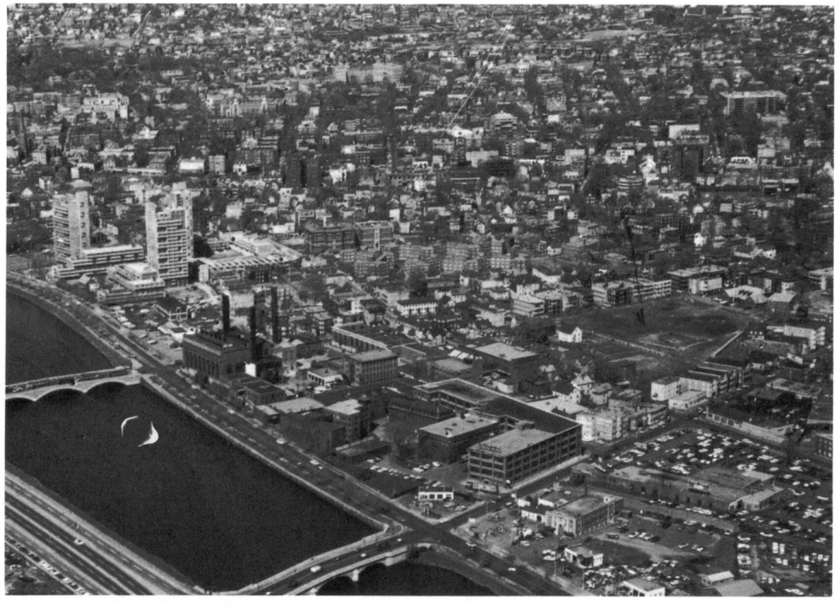
Cottage Street is the other most likely candidate for historic preservation in southern Cambridgeport. Only two blocks long, it has definable and defendable limits, and its strategic corners are occupied by original buildings. No large-scale rebuilding or demolition has yet afflicted it, although (as do all the other cross

396. COTTAGE ST. BETWEEN MAGAZINE AND PLEASANT STS.
THREE OF FIVE GREEK REVIVAL COTTAGES VISIBLE

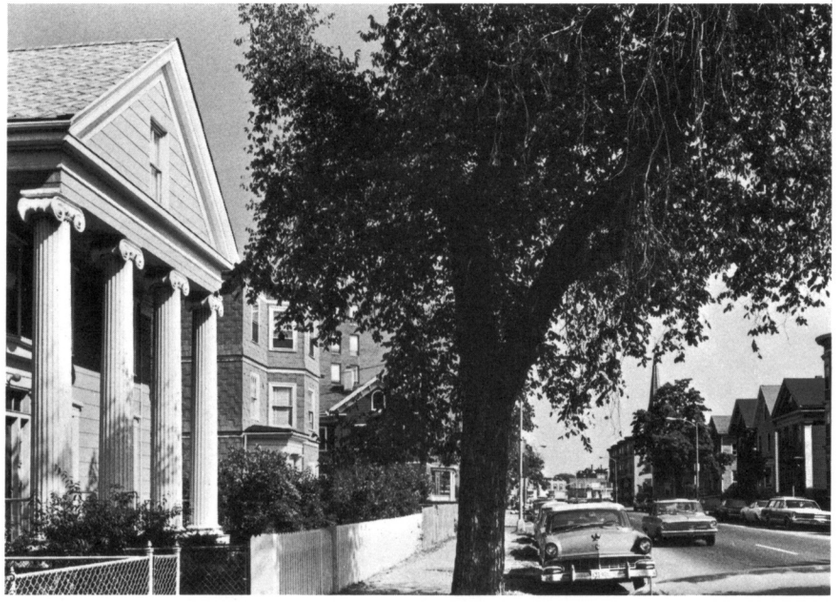
streets off Magazine Street) it has one or two three-deckers that disturb its otherwise excellent character. The view toward the east is closed by the Pearl Street row illustrated in Fig. 391; the opposite end opens into the triangular space where River and Pleasant Streets intersect (Fig. 392). The row of five Greek Revival cottages between 36 and 50 is one of the nicest groups in the whole city (Fig. 396), and there is an interesting group of double cottages at the Pearl Street corner. The good Bracketed house at the corner of Magazine Street (Fig. 110) demonstrates how delightful the whole street could be.

The further from Central Square one goes, the later the date of the buildings. Only one block in length, Perry Street has some good Bracketed and Mansard structures. Its Magazine Street corners are occupied by two very good buildings: the 1886 Grace Methodist Church (Fig. 196) and a delightful Greek Revival and Bracketed double house (Fig. 120). The disappointingly heterogeneous character of the streets fronting Dana Square has already been commented on. The buildings on Erie need little restoration, only the good fortune to be spared from the tactless hand of modernization that has already reduced several fine houses to utter anonymity.

At Hamilton Street the district begins to deteriorate. On the south side of the street are several Bracketed houses with pleasant side yards, but the other side is pitted by two unfortunate apartment buildings. The empty corner lot where once stood a line of row houses is an eyesore and a source of potential architectural danger to the whole southern area. It would be fortunate if three or four houses displaced by new construction elsewhere could be located here. If, instead, the replacement is to be a new structure, let us hope it is not as barren and out-of-scale as the recent small apartment building at 222 Hamilton Street.



397. AERIAL VIEW OF RIVERSIDE, 1964. RIVER FRONTAGE DOMINATED BY RIVERSIDE PRESS, WESTERN AVE. POWER STATION, AND PEABODY TERRACE. RESIDENTIAL NEIGHBORHOOD BEHIND



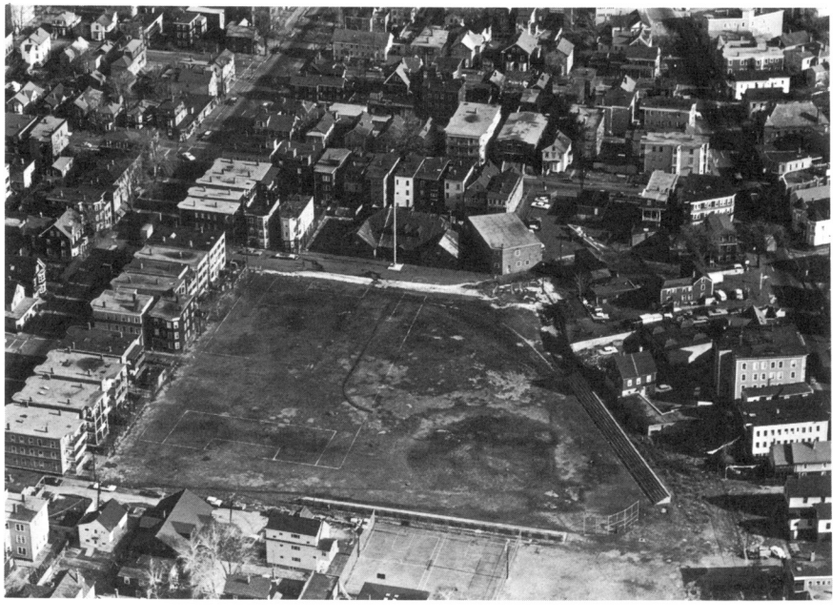
398. WESTERN AVE. LOOKING NORTH TOWARD CENTRAL SQUARE. TEMPLE-FRONT HOUSE (135 WESTERN AVE., FIG. 84) AT LEFT

Riverside

The fourth subarea of residential Cambridgeport lies northwest of River Street between the Charles River and Massachusetts Avenue, extending as far west as DeWolfe Street (Fig. 397). Historically, part of this area was included in the 18th-century Soden Farm, later acquired by Francis Dana. Much of the land was swampy until the old Mill Pond was filled in towards 1900, but several printing and manufacturing plants had previously been constructed along the banks of the river.

Early building was confined to the periphery of the district, particularly along the high ground near Massachusetts Avenue. The low flat triangular area between Franklin Street and Western Avenue is an anonymous zone of two- or three-family houses mostly built up by 1886. As streets like Kinnaird and Jay had remained relatively free until that time, the builders did not have to squeeze new structures between existing ones. Nor were they tempted yet to pack tenements as tightly together as they later would on Howard Street and parts of Western Avenue. For the most part, therefore, the area is comfortable and airy, and the angles in the layout of Kinnaird and Jay Streets avoid a soulless monotony. The garden-like planning of the Putnam Gardens housing project (1953) opens up the core of the district, and certainly Peabody Terrace (Figs. 61-62) furnishes it with a visual focus. None of the early buildings is architecturally important; but the overall residential quality is pleasant, a condition that would be greatly increased by the removal of non-conforming garages and machine shops along Franklin Street. Tall apartment buildings or ones that occupy a high percentage of the lot should be restricted to peripheral areas. Also, curiosities like the 17-sided metal apartment buildings at 348 Franklin Street and 516 Green Street should only be permitted in out-of-the-way places where they do not impair the unity and sequential rhythm of traditional rectangular, gabled buildings. Recently there has been a marked improvement in the upkeep of buildings in this district, and several new houses have been constructed or moved onto new sites here.

From the point of view of architectural conservation, not much is likely to be accomplished on either River Street or Western Avenue. Both streets contain a few nice houses, reminders of an early day when location on a major thoroughfare was thought to be an asset (Fig. 398). Today the heavy traffic that these streets seem destined to carry can only result in further commercialization. Moreover, there is a long stretch on one side of each street of poor architectural quality, the result of inconsistent growth. Construction on land surrounding Hoyt Field (Fig. 399) did not take place until about 1900, when the site of the old Mill Pond was surrounded with monotonous and extremely crowded



399. AERIAL VIEW OF HOYT FIELD, 1967

three-deckers or double three-deckers. The most that the conservationist could ask is that one or two outstanding houses such as 250 River Street or 135 Western Avenue (Fig. 84) be moved to more congenial surroundings and that the remodeling or construction of new buildings on corner lots not be allowed to jeopardize the architectural integrity of the side streets.

The last area to be discussed is the Banks Street neighborhood, bounded by Putnam Avenue, Memorial Drive, and DeWolfe Street (western limit of the survey). Here in the shadows of St. Paul's Church and School and the 22-story towers of Peabody Terrace, a variety of modest single and double houses, three-deckers, and apartments exist with moderate compatibility. Lots are small, but by the use of cul-de-sacs, staggered building lines, and diverse house types, any suggestion of monotony is avoided. Privacy is valued, and good use is made of sheltered gardens. Nothing like this remains so close to Harvard Square. Grant Street contains several houses of Federal design (such as 27 Grant, Fig. 83), but as none of them was here before the 1860's, they must have been moved in from elsewhere. Modern property owners could well follow this old habit of moving houses, with benefit to architectural conservation. Vacant lots could be filled and non-conforming three-deckers replaced by small and well-designed old houses from other, less compatible locations. Construction of Peabody Terrace has centered interest on this area and has stimulated considerable property improvement. One's main concern about this surge of improvement is that it not sweep the old environment entirely out of being.

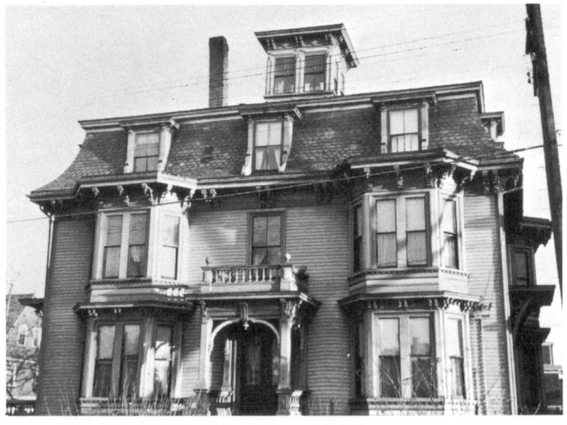
CONCLUSION

This report has recorded the diversity of Cambridgeport architecture from the beginnings of the district to the present, bringing to light buildings and areas of architectural interest where few had been known before. The story, however, is by no means entirely told. Cambridgeport is undergoing substantial changes of direct consequence to its architectural history. In the six years between the initiation of the Cambridgeport survey and the publication of this report, developments such as NASA (now the Transportation Systems Center) have changed the face of large parts of the district, and more such major changes are in store. Much of the rest of Kendall Square remains to be redeveloped; M.I.T. and Harvard are embarking on large-scale housing programs for the benefit of the community rather than of university personnel; and several major industrial complexes (Riverside Press, Simplex) have shut down, with redevelopment plans not yet known. In addition, programs such as those of Model Cities are beginning to show results. The one development which – fortunately – has not come about as predicted six years ago is the Inner Belt highway, which would have seriously divided the Cambridgeport community.

Along with the sweeping changes that are taking place in commercial and industrial Cambridgeport, more subtle changes are occurring in the adjacent residential neighborhoods. Houses are being renovated – sometimes privately, sometimes under the impetus of urban renewal or Model Cities; parks and playgrounds are being built or refurbished; community groups are becoming better organized and are having more to say about the future of their environment. The major point that this report can make at a time like this is that the past of Cambridgeport has a value worth appreciating; needed changes can and should be made with a sensitivity for architectural style and environmental quality.

Throughout this report are comments – some more pointed than others – about buildings that have been badly remodeled. In some cases the results have been inevitable; a building may have deteriorated too far for its original stylistic details to be retained, and a new exterior may have been the only solution. In most cases, however, care could have been taken to retain original features, and the result would have been authentic and harmonious rather than banal.

In Cambridgeport, as in other districts with a preponderance of wooden structures, the greatest villain in building renovation is inappropriate new siding. There is no question that, in the polluted industrial atmosphere of Greater Boston, maintenance of wooden buildings is a problem, and the cost of painting continues to increase. On the other hand, alternative solutions are by no means inexpensive, and a little knowledge and a proper choice can often make the difference between a remodeling that is historically accurate and one that violates a building's integrity.

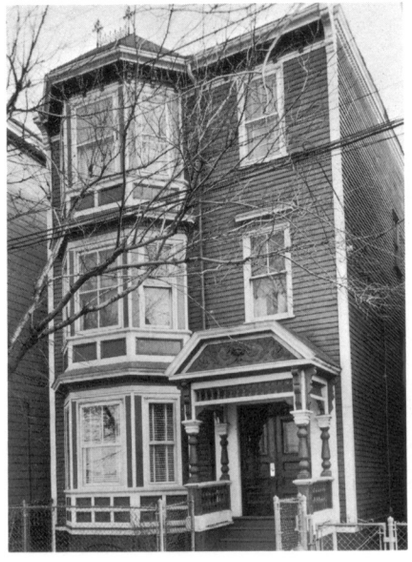


400. 1870 MANSARD HOUSE IN ORIGINAL STATE. 1930'S PHOTO

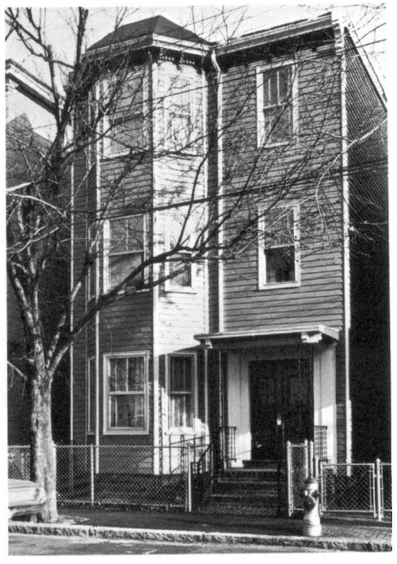
401. 1870 MANSARD HOUSE AFTER RENOVATION. NEW WOOD SHINGLES COVER ORIGINAL CLAPBOARDS AND BAY-WINDOW TRIM. 1965 PHOTO

Some examples will help to illustrate this point. The examples are chosen from different parts of the survey area and represent different periods, types, and styles, but all are typical of Cambridgeport in the problems that were confronted and the kinds of solutions that were worked out.

In southern Cambridgeport, a sizable mansard-roofed house of 1870 survived in its original state well into the present century. Fig. 400 shows it as it was in the 1930's, complete with balustraded front porch, symmetrical bay windows with bracketed projections between the stories, and rope moldings (hardly visible in the photograph) at the corners. A subsequent remodeling, completed before the photograph shown in Fig. 401 was taken in 1965, involved a small addition at the left of the facade (altering the original mass of the building) and new exterior sheathing of dark wood shingles. In the process, the corner moldings, all detail on the bay windows (except at the cornice line), and the porch balustrades were lost. The building still has considerable style, because the bracketed cornice, lower-slope roof slates, and surmounting cupola were retained, but comparison with the earlier state shows how much really was lost. From being



402. 1897 THREE-DECKER IN ORIGINAL STATE. 1969 PHOTO



403. 1897 THREE-DECKER AFTER RENOVATION. NEW FRONT PORCH AND ALUMINUM SIDING. 1970 PHOTO

elaborate and distinctive, the house became routine and pedestrian. There is nothing wrong with the wood shingles as such, but they were never used on 1870 houses like this one; if the siding needed replacement, wood clapboards like the original ones would have been far preferable. Ornamental trim such as that on the porch and bay windows does require a certain amount of care and attention, and is not so easily restored, but the presence of such trim on a house of this sort sets it apart from the ordinary and gives it the ring of authenticity.

In the Donnelly Field neighborhood, a pair of three-deckers built in 1897 had greater than average style and character for their type. Fig. 402 shows one of them as it looked as recently as January 1969. The most striking feature was the elaborate porch with its stumpy turned posts, spindle frieze, and rococo ornament in the trapezoidal pediment. Next in interest was the three-story tier of bay windows, with paneling below the windows and projecting roofs with dentil cornices between the stories. Atop the bay was a fanciful bit of iron cresting; a similar piece of ornament originally surmounted the porch roof as well. All these features were lost in a recent remodeling that brought the building to its present appearance (Fig. 403). Aluminum siding covers the entire exterior, most prominently obscuring the differences between the stories on the bay. The individual roof projections have been removed, the window paneling has been covered, and the visual emphasis of the bay has been shifted from a subtle combination of horizontal and vertical elements to a sleekly vertical effect. At least the new siding has a clapboard width nearly identical to that of the original wood siding, so that the unornamented walls of the building look substantially the same as before – although the new corner boards are too narrow.

404. 1897 THREE-DECKER FRONT PORCHES IN ORIGINAL STATE. 1930'S PHOTO

405. 1897 THREE-DECKER FRONT PORCHES AFTER REPLACEMENT. 1970 PHOTO

406. 1805 FEDERAL HOUSE (172 HARVARD ST.) BEFORE RESTORATION

407. 1805 FEDERAL HOUSE (172 HARVARD ST.) AFTER RESTORATION

The changes to the front porch are the most unfortunate. Fig. 404 shows the porches of this house and its identical next-door neighbor as they appeared in the 1930's; Fig. 405 shows them today, devoid of original stylistic features. The wooden balustrades, turned posts, spindle friezes, pediment ornament (even the entire pediment in one case), and the iron cresting have all been removed; by comparison, the wrought-iron replacement supports look insubstantial indeed.

Also visible in Figs. 404 and 405 is the change from wooden fencing with solid, curved-topped posts to ordinary chain-link fencing. This sort of change is even more common in Cambridgeport than the change to artificial siding, a result no doubt of the high maintenance costs of wooden fencing and the relatively low installation cost of chain link. The visual result, however, is far from attractive.

Fortunately, not all renovation in Cambridgeport has been bad. Exterior restoration of both the Margaret Fuller House (Fig. 64) and the Cambridge Neighborhood House (Fig. 68) has followed proper historical considerations, and several private houses have also been rehabilitated properly. One of these, 172 Harvard Street, until recently was covered with dingy asphalt siding and had non-original two-over-two sash (Fig. 406); new wood clapboards and six-over-six sash brought the house back to substantially its original appearance (Fig. 407). Since the cost for this kind of work is not necessarily higher than for ill-advised "modernization," it should be possible for other Cambridgeport buildings to be renovated in a similar way and for a substantial portion of the district to maintain an authentic and consistent appearance.

The changes that are occurring in industrial Cambridgeport nearly always involve demolition of existing structures and the creation of a new environment – new in use, size, and scale. The same is not true in residential Cambridgeport, where the structures that survive from the 19th century require only sensitive adaptation to fit them to the needs of the present and to enable them to serve as constructive ties to the future. This report has pointed up the history, interest, and value of the buildings and streetscapes of Cambridgeport so that the people of the district will have the information they need to make the right decisions about their environment in the years to come.

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